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ECONOMIC GROWTH PROJECT

CONTRACT 685-1-00-06-00005-00
TASK ORDER 5

FY 2014 ANNUAL REPORT
OCTOBER 1, 2013 – SEPTEMBER 30, 2014

October 2014
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Submitted by International Resources Group (IRG)

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Acronyms

AfDB	African Development Bank
AFAO	Association des Femmes de l'Afrique de l'Ouest
AGRA	Alliance for a Green Revolution in Africa
ANCAR	Agence Nationale de Conseil Agricole et Rural
ANE	Acteurs Non-Etatiques
AKNB	Association Kawral Nguénar et Bosséa
APOV	Association des Producteurs d'Oignon de la Vallée
APMSV	Association des Producteurs de Maïset Sorgho de la Vallée
ARM	Agence de Régulation des Marchés
ASPRODEB	Association Sénégalaise pour la Promotion du Développement à la Base
APIX	Agence de Promotion des Investissements et des Grands Travaux
BEO	Bureau Environmental Officer
BFPA	Bureau de la Formation Professionnelle Agricole
BDS	Business Development Services
BNDE	Banque Nationale pour le Développement Economique
CBSP	Community Based Service Providers
CIRIZ	Comité Interprofessionnel du Riz
CNCAS	Caisse National de Crédit Agricole
CNCR	Conseil National de Concertation et de Coopération des Ruraux
CNSA	Conseil National à la Sécurité Alimentaire
CNAAS	Compagnie d'Assurance Agricole du Sénégal
CNT	Coumba Nor Thiam
CNREFS	Comité National de Réflexion sur l'Engrais et la Fertilité des Sols
COOSEN	Coopérative Semencière du Nord
CSE	Centre de Suivi Écologique
CTS	Centre de Traitement des Semences
DA	Direction de l'Agriculture
DAPS	Direction de l'Analyse, de la Prévision et des Statistiques
DCA	Development Credit Authority
DHORT	Direction de l'Horticulture
DISEM	Division des Semences
DRDR	Direction Régionale du Développement Rural
ECOWAS	Economic Community of West African States
EMMP	Environmental Mitigation and Monitoring Plan
ENEA	Ecole Nationale d'Economie Appliquée
ENSA	Ecole Nationale Supérieure d'Agriculture
ERA	Education et Recherche en Agriculture
FEPROMAS	Fédération des Producteurs de Maïs du Saloum
FAFD	Fédération des Associations du Fouta pour le Développement
FTF	Feed the Future
FNDASP	Fond National de Développement Agro-Sylvo-Pastoral
FPA	Fédération des Périmètres Autogérés
FY	Fiscal Year
GIE	Groupement d'Intérêt Economique
GLEE	Global Learning and Evidence Exchanges
GPS	Global Positioning System
GMO	Genetically Modified Organism
ICRISAT	Institut international de recherche sur les cultures des zones tropicales semi-arides
IFAD	International Fund for Agriculture Development

IPAR	Initiative Prospective Agricole et Rurale
ISFAR	Institut Supérieur de Formation Agricole et Rurale
ISRA	Institut Sénégalais de Recherches Agricoles
IRG	International Resources Group
JICA	Japan International Cooperation Agency
LL	Lowland (rice)
LOASP	Loi d'Orientation Agro-Sylvo-Pastorale
MAER	Ministère de l'Agriculture et de l'Equipement Rural
MCC	Millennium Challenge Corporation
M&E	Monitoring and Evaluation
NAFSAN	New Alliance for Food Security and Nutrition
NGO	Non-Governmental Organization
OECD	Organization for Economic Cooperation and Development
PAFA	Projet d'Appui aux Filières Agricoles
PADAER	Programme d'Appui au Développement Agricole et à l'Entreprenariat Rural
PERSUAP	Pesticide Evaluation Report and Safe User Action Plan
PNAR	Programme National d'Autosuffisance en Riz
PNIA	Programme National D'investissement Agricole
PMP	Performance Management Plan
PRACAS	Programme de Relance et d'Accélération de la Cadence de l'Agriculture au Sénégal
REO	Regional Environmental Office
REPAS	Renforcement de la Production Agricole au Sénégal (Coopération Canadienne)
REPROSEM	Réseau des Producteurs de Semence de Maïs
REPROSENER	Réseau des Producteurs de Semences Nerica
RPSCL/BA	Regroupement des Producteurs de Semences de Céréales Locales du Bassin Arachidier
RS	Rain Season
SAED	Société Nationale d'Aménagement et d'Exploitation des Terres du Delta du Fleuve Sénégal et des Vallées du Fleuve Sénégal et de la Falémé
SARD-SC	Support to Agricultural Research for the Development of Strategic Crops
SDDR	Service Départemental du Développement Rural
SFZ	Southern Forest Zone
SRV	Senegal River Valley
ToT	Training of Trainers
SODEFITEX	Société de Développement des Fibres Textiles
UCAD	Université Cheikh Anta Diop de Dakar
UGPCL	Union de Groupements des Producteurs de Céréales Locales-
UL	Upland (rice)
UNIS	Union Nationale Interprofessionnelle des Semences
USDA	United States Department of Agriculture
USAID/PCE	USAID/Projet Croissance Economique
USAID	United States Agency for International Development
VC	Value Chain
WASA	West Africa Seed Alliance
WAMU	West Africa Monetary Union

INTRODUCTION

International Resources Group is pleased to submit to USAID/Senegal this annual report for Fiscal Year 2014 for Task Order 5 of the USAID Economic Growth Project (USAID/PCE). This report corresponds to the updated Work Plan submitted to USAID/Senegal in March 2014 by IRG. The update was in response to the USAID/Senegal mission's decision to allow IRG to propose a no-cost extension of the task order, which will now continue until May 29th 2015.

As a reminder, the present task order is carried out under the SAGIC IQC that was launched in 2006. Task Order 5 began in April 2009 and its closing date, initially November 30, 2013, was first extended to May 30, 2014 so the project could provide uninterrupted support to its beneficiaries during the 2013 rain season (June 2013 – March2014). In February 2014, USAID conveyed to IRG its interest in extending the period of performance of the task order until the end of May 2015.

The FY14 Work Plan initially submitted by IRG in September 2013 centered on the completion of work initiated during the previous fiscal year as well as a series of capitalization and handover activities in the interest of full project closeout by May 2014. The updated FY14 work plan added new activities that are aligned with USAID priorities for the remainder of the extension period.

This annual report is structured similarly to the original revised FY14 work plan approved by USAID. The Technical sections and the analysis of Cross Cutting themes describe project achievements for the fiscal year, with an added emphasis on key outcomes, highlights, and lessons learned. This FY14 annual report aims to contextualize FY14 results within the broader scope of the previous implementation years, to better demonstrate the trends and impacts that have been observed to date. In that sense the FY14 annual report prefigures the project's final report and launches the discussion on what actions could be planned as follow-on to reinforce and scale current results.

The reader will notice this report includes an important number of maps that provide a geographic perspective to USAID/PCE's activities. In effect, a central objective of this extension year was to scale interventions across the full FTF zone of influence and such geo-spatial analysis provides the project with a powerful monitoring tool. A number of hyperlinks have been embedded throughout this report, which enable virtual retrieval of full sized PDF versions of these maps, as well as training posters, videos, etc. We have also included comprehensive data tables made possible by the rich databases that are updated and maintained by the project's more than 60 partner networks. This provides the reader with the possibility to get a broader understanding of the organizational diversity behind the project's implementation.

1. SUMMARY

Context

USAID/PCE activities were implemented in the context of the launch of two of the Government of Senegal's key development initiatives: PRACAS, the program for the acceleration of agricultural growth, and the PSE, the Plan for the Emergence of Senegal. Both programs place an emphasis on a growth strategy that includes the country's small farmers and seeks to achieve food security, particularly rice self-sufficiency. Both programs are also fully coherent with the PNIA and NASAN and are poised to capitalize on USAID/PCE results to date in the rain fed rice value chain as well as in the seed sector and in the promotion of cereal corridors. The nomination at the beginning of the fiscal year of AfricaRice Director Papa Abdoulaye Seck as Minister of Agriculture and Rural Equipment provides the sector with a technically strong leadership that has the capacity to appreciate the sector's potential. These positive developments should not mask however the important institutional constraints to a full empowerment of the private sector to boost agricultural growth, as have been highlighted by the recently convened NASAN private sector working group.

Rain season 2014 has highlighted the effect of climate variability, with the displacement of the first rains beyond late July, a situation that has not been encountered since 1966 according to meteorological data. At reporting date it appears that several areas in the Southern Forest Zones targeted by the project were spared and will be able to get by, albeit with lesser yields. This will put to the test the nascent rain index insurance programs, and highlight the need for tight rainfall tracking and risk-mitigating practices such as conservation farming.

Key project activities and results

The main objective of the FY14 program was to scale the introduction of technologies to zones not yet covered by the program:

The Value Chain program expanded its training activities. In **the irrigated rice sector** of the Senegal River Valley, the project was able to partner with 36 farmer organizations, mainly in the Podor and Matam zones but also with women-led organizations of the lower Delta. Trainings covered good agricultural practices with "Le Chemin du Bon Riz" reaching 5,220 farmers and the quality assurance trainings reaching 4,304 farmers to date. Millers who have been involved in the program since FY13 reported significant gains in productivity and quality, with milling yields exceeding 63% of raw material, which used to be less than 60%.

In **the rain fed sector**, average yields reached 2 tons per ha during the 2013 rain season with seed production nearing 500 tons. For the current rain season, the program has expanded from 9 to 14 networks and covers most of Casamance as well as several rural communities just north of the Gambian border. Lowland rice farming, practiced mainly by women, is now an integral part of the program, and to this end additional specific varieties have been added to the original upland Nerica portfolio. A network of 780 demonstration sites, a significant number of them doubling up as seed multiplication plots, serve as bases for a training program that has reached 12,852 farmers to date, 60% of whom are women. These plots are expected to produce more than 1,000 tons of quality seeds, enough to cover 10,000 hectares.

In the **maize and millet value chains**, a strong focus has been placed on contract farming and post harvest quality monitoring. Several rain fed rice groups have joined the maize program as they have noted that the high yields obtained by FEPROMAS and other farmer groups make maize an attractive cash crop opportunity. Farmer organizations such as FEPROMAS and the commercial millet groups are developing strong contract management capacities, and managed the 2014 input procurement process on their own, getting their fertilizer orders delivered ahead of the June sowing deadline.

In the **seed sector**, a highlight of FY14 is the completion of the two seed processing facilities in Richard Toll and Kolda, each with a capacity of more than 5,000 tons of seed. The Richard Toll project stands out as an innovative PPP agreement between the Ministry of Agriculture and COOSEN which groups 36 seed multiplication firms active in the SRV. In Kolda, the project is led by agri-dealer SEDAB and gives Casamance farmers the infrastructure required to process seed within the region.

The **innovative financial services** promoted by the Access to Finance component have also expanded. The Value Chain integrated lending system developed with CNCAS in the Senegal River Valley is no longer limited to VITAL Agro-industries, but now finances the procurement plan of seven additional mills. As a result, CNCAS loans reached $12 million and are increasing sharply from one season to the next. This growth has enticed other financial institutions such as PAMECAS and BNDE to follow suit and get involved in the financing of rice production. To date, the new financing mechanism has brought down the unpaid loan ratio to less than 5% in the Valley and even less in the maize and millet groups.

Crop insurance plays an important role in securing this rise in credit. Crop insurance in the Senegal River Valley has been promoted by CNCAS with the support of USAID/PCE, benefitting nearly 5,000 farmers to date, with this number due to increase for the upcoming cycle. Rain index insurance policies in the Saloum have been purchased by FEPROMAS members and constitute an important element of the collateral for their loan applications. In FY14, the commercial millet groups also procured rain index insurance, bringing the total number of farmers paying for coverage of their loans against rainfall risks to 2,000.

Senegal River Valley service providers are adopting **lease financing** for the acquisition of harvest combines, tractors and graders. USAID partner Locafrique contracted a total value of $3.4 million in agricultural equipment this year and will open a permanent office in Saint Louis to bolster its agriculture lending operation. This equipment enables local private firms to expand land holdings and further invest in land preparation to expand production. Harvest combines accelerate harvesting and open the way to double-cropping.

The renewed government focus on agricultural growth is in line with PNIA, and significant progress has been achieved in putting in place its steering and governance institutions. The production of agricultural statistics is improving from year to year, and thanks to FY14 activities, will be able to count on a newly acquired remote sensing estimation system to validate results for key cereal crops.

The growth experienced in the commercial rice sector and the focus placed by the government on rice self-sufficiency have renewed the interest of rice sector stakeholders for CIRIZ, which had until now been stagnant. During FY14, a number of consultation workshops were held, which included participants from the lower delta, the middle and upper valley as well as the rainfed rice-producing zones of Casamance and the Saloum. The new texts are now complete and the organization's mandate has been renewed.

Finally, the market promotion activities organized in FY14 put the spotlight on Senegal's new rice brands, backed by sound quality control and improved rice mills. This visibility was acquired through the FIARA promotion as well as the "Caravane du Riz Sénégalais" event, which were covered nationally by the media and gave Dakar consumers the opportunity to taste the quality of their national product for themselves.

FY14 served as the opportunity to initiate synergies with USAID/Yaajeende. The two projects now share offices in Kolda and Matam and conduct joint programs, sharing technical approaches and relying on their networks of partners to improve outreach and impact.

The current year ends therefore on a very strong note. This of course should not obviate the fact that many constraints remain to be addressed and that project successes need to be scaled in such a way that they benefit the less advantaged rural populations. It should not also blind us to the risks of losing control of the exponential surge in lending and of neglecting the persistent lack of infrastructure, particularly storage, that is necessary to support such growth in production.

USAID/PCE nevertheless considers the current momentum that has been achieved as a powerful force that, if properly harnessed, has the potential to achieve exponential inclusive growth with a lasting impact.

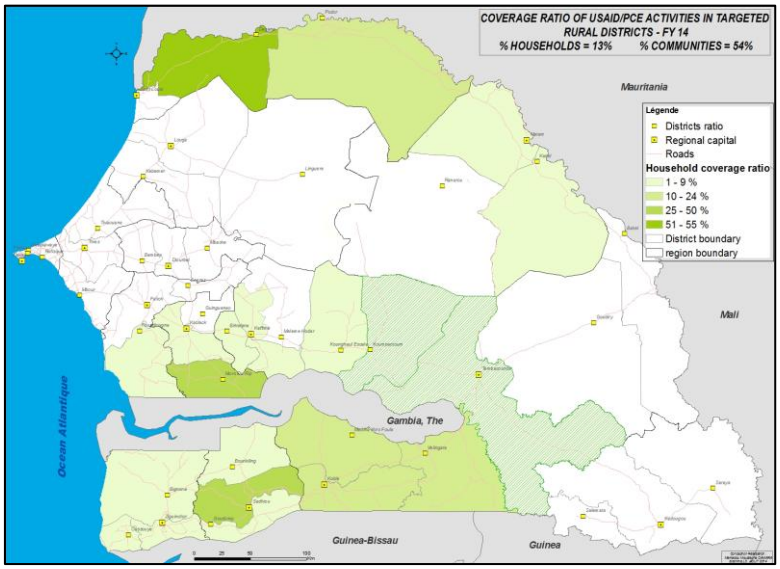
Indicator Overview

FY14 indicators were initially set in the prospective of a mid-year closeout. They were adjusted following the extension and targets were based on a full year's operation. However it should be noted that because the extension was confirmed in May 2014, the project was not able to carry out trainings to support the SRV dry season, which covers the February-July period, and instead focused its attention on the rain season cycle which carries over to FY15. This explains some minor shortfalls in attaining outreach targets as well as the expected carryover of training results to FY15. This will be the case for post-harvest and quality management modules that concern the harvest period that begins in late October in the SFZ. It also explains the low farm gate sales which do not include an important portion of the dry season harvest in the SRV as farmer groups did not have active agreements with the project and are therefore considered indirect adopters of the credit, contracts and insurance mechanisms.

The sharp rise in lending and investment indicators is mainly due to the expansion of the Senegal River Valley's rice production activity, which has created demand for equipment that was met in part by Locafrique. Working capital loans by CNCAS are also increasing rapidly as certain farmer organizations are attempting double cropping. However, commercial credit lines have declined in value because CNCAS is not transferring outright ownership to a single buyer but rather allocating smaller revolving short-term credit facilities to multiple rice mills.

Indicator	FY 13 Actual	FY 14 Targets (FTFMS update)	FY 14 Extension Workplan	FY 14 Results
Number of rural households benefiting directly	44,775	9,000	**41,500**	**43,617**
Number of hectares under improved technologies or management practices	18,016	18,000	**31,900**	**30,154**
Number of farmers and others who have applied new technologies or management practices as a result of USG assistance	25,486	22,000	**31,000**	**26,524**
Value of incremental sales (collected at farm-level) attributed to FTF implementation	$ 21,727,229	$13,580,000	**$23,730,000**	**$18,347,657**
Value of Agricultural and Rural Loans	$18,814,858	$2,000,000	**$10,000,000**	**$16,376,096**
Value of new Investments leveraged by FTF implementation	$3,111,714	$480,000	**$2,000,000**	**$3,833,335**
Number of MSMEs, including farmers, receiving assistance to access loans	14,588	4,500	**15,000**	**13,010**
Number of jobs attributed to FTF implementation	4,713	2,000	**7,000**	**8,258**
Quantity of foundation and certified seed produced	3,736	2,150T	**3,150**	**4,537**
Numbers of Policies & Regulations in different stages of development	14	22	**24**	**20**
Number of public-private partnerships formed as a result of FTF assistance	86	10	**50**	**78**
Number of business-to-business partnerships developed	2,195	450	**1,200**	**1,319**

The national census results provided the opportunity to match the data relative to rural households at the department level with the project's geo-referenced monitoring and evaluation databases. The objective of this exercise was to assess the level of penetration of USAID/PCE activities in rural communities. The results of this analysis are presented visually on the following map, for which we are also providing the detailed results. Overall, USAID/PCE activities have covered 11% of the households in its zone of influence.



The highest penetration rate is predictably in Dagana (55%), which embodies the lower Delta zone of the SRV. Other focus districts are Nioro du Rip (25%), Kolda (18%) and Sedhiou (30%). These were historically the first zones of project intervention and benefited from the full three years of Feed the Future's focused approach. The challenge is clearly to scale beyond these zones to the broader Casamance, Saloum and the Middle and Upper Senegal River Valley. The presence of the project in 54% of the rural communes provides a strong field presence from which to pursue the scaling and layering of interventions.

DEPARTMENT	Number of Rural Households	Number of USAID/PCE Beneficiary Households	Household Coverage (%)	Number of Communes	Communes with USAID/PCE Presence	Commune Coverage (%)
DAGANA	18,762	10,233	55	11	5	45
PODOR	35,075	4,125	12	10	7	70
MATAM	21,068	3,652	17	10	7	70
KANEL	15,790	1,392	9	12	3	25
Total Northern Zone	***90,695***	***19,402***	***21***	***43***	***22***	***51***
KAOLACK	24,101	1,816	8	9	4	44
BIRKILANE	7,946	609	8	8	7	88
NIORO DU RIP	24,928	6,324	25	15	15	100
KAFFRINE	14,800	210	1	8	2	25
KOUNGUEUL	13,607	184	1	9	1	11
FOUNDIOUGNE	20,541	511	2	12	3	25
Total Central Zone	***105,923***	***9,654***	***9***	***61***	***32***	***52***
BIGNONA	22,413	342	2	18	4	22
BOUNKILING	10,846	467	4	14	5	36
GOUDOMP	11,257	918	8	15	3	20
KOLDA	16,647	2,970	18	14	12	86
MEDINA YORO FOULA	10,711	1,600	15	11	9	82
OUSSOUYE	6,171	292	5	4	1	25
SEDHIOU	10,216	3,104	30	13	12	92
VELINGARA	23,739	1,812	8	14	10	71
ZIGUINCHOR	13,956	537	4	5	5	100
Total Southern Zone	***125,956***	***12,042***	***10***	***108***	***61***	***56***
Total Zone of Influence	**322,574**	**41,098**	**13**	**212**	**115**	**54**

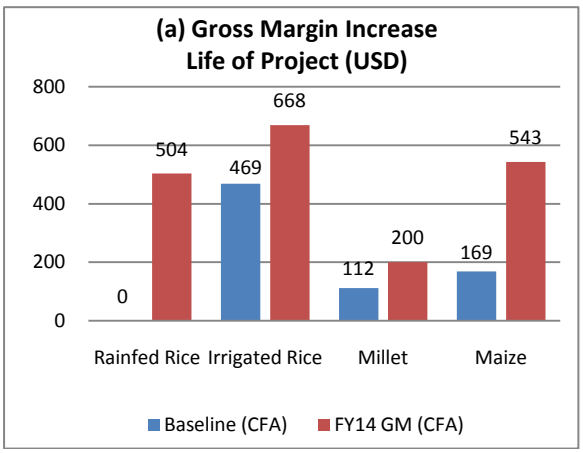
2. TASK ORDER 5 RESULTS BY COMPONENT

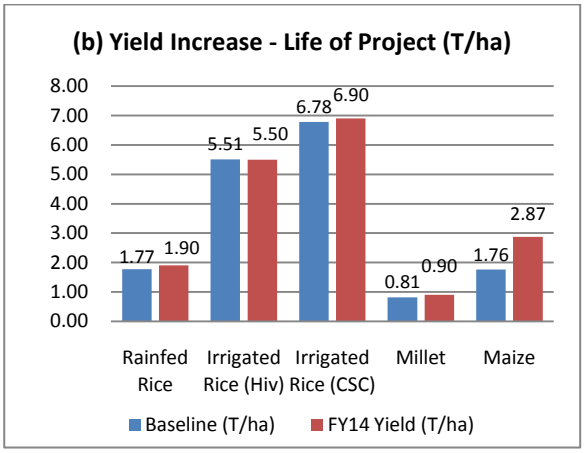
2.1 Value Chains

The Value Chain component's mission is to give farmers in the irrigated rice, rain fed rice, maize and millet sectors the opportunity to witness, understand and adopt an array of farming, harvesting, quality monitoring, contracting and management technologies and practices that will boost their productivity, make them food secure and sustainably connect them to local and national markets.

To achieve scale, USAID/PCE's intervention strategy for value chain development is built upon cost share partnerships with producer networks, consolidators and processors. Building on lessons learned from previous implementation years has allowed USAID/PCE to scale up best practice awareness and adoption, and increase both geographic coverage and the number of producers involved for all value chains.

The graphs below show the average gross margin (a) and average gross yields (b) against the project baseline[1] (2009). The positive progression in gross margins witnessed for all crops is the composite effect of increases in unit price and significant gains in yields.





The contract sales arrangements promoted by USAID/PCE allow for an orderly marketing of crops that relieves farmers from the pressure to sell for fast cash and that establishes early price benchmarks. As a result, farmers are now less exposed to the traditional price dips experienced at time of harvest. In effect, contracts promoted by the Value Chain team in rice, maize and millet have flattened the seasonal price curve and boosted it to higher levels – from less than 100CFA per kg to 125 CFA for rice; 90 CFA to 150 CFA for maize and today's starting prices reaching 200 CFA for millet. Improved quality achieved through the dissemination of norms and standards across all value chains is the foundation of such contracts, where processors offer premium prices, passing down part of their efficiency gains through sliding scale pricing systems correlated to quality standards. Well-monitored humidity plus the absence of foreign matter and contaminants give farmers the option for longer-term storage and orderly release of the grain to the market.

Productivity wise[2], the overall picture from the field is that of a sharp increase in yields experienced by small farmers adopting the technology packages such as "Le Chemin du Bon Riz," certified seeds of improved varieties, basic mechanization of sowing and conservation farming tillage. Database

[1]The PMP does not include a baseline value for rain-fed rice for 2010 as the commodity was not included in the portfolio at the time.

[2] It should be noted that the baseline yields are taken from the 2010 agricultural survey and should be taken with some caution.

management skills further contribute to maximizing yields by providing farmers with timely and precise information to track farming methods, coordinate input procurement, schedule harvesting, monitor quality, and assess their performance for the year on all accounts. This new management capability has transformed dispersed individual smallholders into compact and productive units.

It is against this positive backdrop that the 2014 Value Chain program was deployed across the SRV and the SFZ (see map) and now reaches the greater part of the Feed the Future target zones. The following sections present FY14 activities and results to date of this scaled up program. The intervention approach in FY14 was structured to address four core value chain competencies:

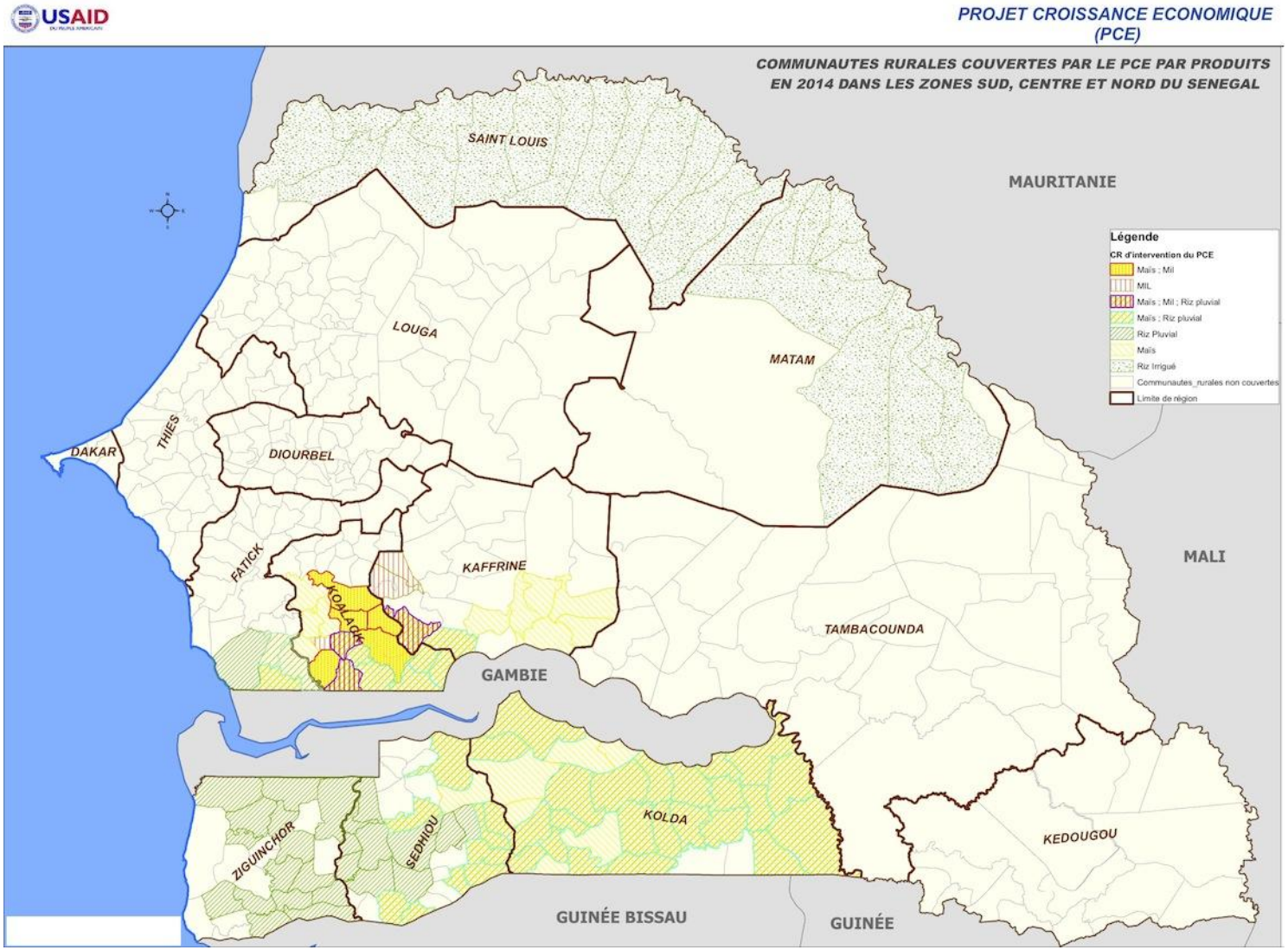
- **Field Productivity Training**: Organizing events and trainings at demonstration sites on good practices (production, post-harvest operations, product quality management at the farm level, etc.);
- **Quality Control Program**: Organizing and delivering trainings on standardized quality norms and tracking of compliance through crop production quality measurements;
- **Contract Farming**: Supporting contractual arrangements between stakeholders for production financing and output marketing;
- **Databases and Information Systems**: Supporting the creation and development of geo-referenced databases of producers' networks to facilitate activity planning and monitoring.

The central objective of the USAID/PCE extension into 2015 is to scale up project outreach and adoption of technologies. During FY14, the Value Chains component has focused its activity on expanding the geographic coverage of its programs, diversifying and adding to its list of partner farmer networks, and deepening the outreach of the existing successful collaborations:

- Irrigated Rice: USAID/PCE focused primarily on activities supporting network productivity and quality control. For productivity trainings, the project switched from2large cooperatives whose outreach had been limited to 2,500 producers, to 10networks of water user associations in the Senegal River Valley (Matam and Podor), for a new total of 5,220 producers. The quality control pilot that started in FY13 with 2,000 farmers from 6 networks was increased drastically in FY14 for a new total of 5,850 producers from 21 networks, 13 of which are women-led organizations.
- Rainfed Rice: PCE has added 5,516 farmers in 2014, by expanding interventions to5 additional networks—representing a 54% increase from the FY13 number of beneficiaries (10,640 farmers from 9 networks)—for a current total of 16,156 members. At time of reporting, 16,014 rainfed rice farmers have been trained in FY14 (60% of which are women).
- Maize: In 2014, PCE increased the number of maize producers involved in the program, from 5,558in FY13 to 7,920 with 10,486 trained in FY14 (of which 17% or 1,748 are women). Many of these farmers voluntarily sought out inclusion in PCE support activities after witnessing the success their community members enjoyed as a result of their involvement.
- Millet: The number of millet producers increased in FY14 from 2,529to 2,656 through the enrollment of a seventh partner network. The number would have been much higher but the existing partner network Wack Ngouna had a significant decrease in membership following a strict review of those who were not in compliance with their contracts.

An important scaling-up objective for the 2014 extension was to increase the participation of women across all sectors. The value chain capacity building program has been able to increase the participation of women in all sectors from 28% participation in FY2013 to 35% overall for FY14. The rainfed rice value chain program represents 60% participation of women due to the expansion of the number of lowland sites where they are predominant. Gains have also been achieved in irrigated rice which now reaches 2,501 women bringing the percent of female SRV beneficiaries to 16% (from 12% in FY13).In the traditionally maize and millet sector female participation has reached 13% and 24% (respectively) from last year's levels of 12% and 22%.

Map 1. USAID/PCE value chain intervention zones for FY14



Field Productivity Training

To foster optimal growing conditions and increase crop production capacity, PCE has introduced and disseminated proven technologies that are tailored to the particular needs of value chains across the different geographical intervention zones. Lead farmers have established demonstration sites, and facilitators and lead farmers received trainings as trainers (ToTs) to popularize best practices within their immediate community.

The following process has been applied for all value chains in order to reach the maximum number of producers in the FTF target zones:

- Identification of monitoring agents/facilitators and lead farmers to run demonstration sites;
- Briefings and awareness-raising meetings for involved stakeholders, including monitoring agents/facilitators, lead farmers, GIE leadership, and others;
- Trainings of trainers for facilitators and lead farmers on training content and methodology, as well as approaches for following-up with and tracking trainees' progress.
- Use of established criteria for identifying and selecting producer participants for each training, to maximize learning impact.

Table 1providesdetails regarding the training sessions delivered in FY14. The table lists the productivity training statistics for each value chain program (irrigated rice, rain fed rice, maize, millet). Attendance data is presented for each partner network and summarized by sub-zone (Podor, Matam, Saloum, Casamance) where appropriate. The reader will notice that certain groups present in the rainfed rice list are also present in the maize list. This is because certain rice networks decided to adopt maize as a complementary cash crop. For indicative purposes, we are also providing each network's current membership. This enables the reader to compare training activity outreach within and beyond each network's immediate constituency.

Concerning the columns presenting the training statistics for FY14, it is important to understand that in cereal value chains, the training activity needs to be aligned with the seasonal crop cycles. In Senegal the rain season starts from first sowings in June and ends with harvests as late as December (in the case of irrigated rice). In the SRV, the Dagana and Podor zones also practice a second season called the Dry Hot Season ("*Contre Saison Chaude*" or CSC), which starts in February and ends in July. However, for reporting purposes USAID/PCE must align with the US Government fiscal year, which ends September 30th. This means that training attendance numbers for a fiscal reporting year comprise sessions held at the end of the previous rain season (in this case RS2013) and at the beginning of the current one (here RS2014).The training statistics listed in the table for FY14 are therefore disaggregated to display trainings held in RS2013 (rain season 2013) and RS2014 (rain season 2014). The percent of female attendees is also displayed.

Finally we have completed the table with data relative to the targets set for each partner by the cost share agreements signed with the projects and the percentage achieved to date (ratio of RS2014 attendees vs. the PO target). It should be noted that in many cases we expect trainings to be pursued into FY15 and the achievement figures are only indicative of group performances.

Table1. Value Chains - Best Practice Trainings in FY14							
Partner Network (by region)	Network Membership	RS2013 program	RS2014 program	Totals		FY14 P.O. Goal	Achievement to date (%)
				Total FY14	% F		
Irrigated Rice - Best Practice Trainings in FY14							
FEGINA	2,639	-	351	351	34%	750	47%
FEGIED	1,500	-	100	100	15%	300	33%
Suma Nianga	1,579	-	269	269	6%	600	45%
UJACK	4,800	-	300	300	23%	400	75%
Wodos Pété	944	-	108	108	17%	400	27%
Diomandou	984	-	200	200	23%	400	50%
Subtotal Podor	**12,446**	**-**	**1,328**	**1,328**	**21%**	**2,850**	**47%**
AKNB	10,994	-	3,216	3,216	7%	1,400	230%
Hamady Hounaré	507	-	106	106	1%	500	21%
Orkadiéré	715	-	263	263	0%	600	44%
Pidam	4,874	-	307	307	68%	600	51%
Subtotal Matam	**17,090**	**-**	**3,892**	**3,892**	**11%**	**3,100**	**126%**
Total Irrigated Rice	**29,536**	**-**	**5,220**	**5,220**	**16%**	**5,950**	**88%**
Upland and Lowland Rainfed Rice - Best Practice Trainings in FY14							
Symbiose	2,126	712	636	1,348	49%	2,450	26%
Keur Samba Gueye	308	131	524	524	24%	400	131%
Nioro Alassane Tall	219	-	444	444	17%	420	106%
Keur Saloum Diané	389	-	433	433	61%	420	103%
Subtotal Saloum	**3,042**	**843**	**2,037**	**2,749**	**29%**	**3,690**	**74%**
Fabo Dental	1,706	409	1,107	1,516	53%	2,800	40%
Caritas Kolda	1,550	1,465	1,585	2,350	67%	2,800	57%
Kissal Patim	1,287	188	1,722	1,722	58%	2,450	70%
Caritas Ziguinchor	1,816	1,101	843	1,843	45%	2,450	34%
AVSF	1,098	327	983	983	89%	1,400	70%
Assolucer	1,910	276	1,254	1,530	61%	3,150	40%
COOPAD	2,278	0	1,891	1,891	75%	2,450	77%
CASADES	473	-	500	500	97%	420	119%
ASED	405	-	320	320	45%	420	76%
FODDE	591	-	610	610	70%	600	102%
Subtotal Casamance	**13,114**	**3,766**	**10,815**	**13,265**	**64%**	**18,940**	**70%**
Total Rainfed Rice	**16,156**	**4,609**	**12,852**	**16,014**	**60%**	**22,630**	**57%**
Maize - Best Practice Trainings in FY14							
Fepromas	2,087	-	5,120	5,120	9%	5,000	102%
Keur Saloum Diané	258	-	475	475	36%	500	95%
Nioro Alassane Tall	316	-	524	524	15%	500	105%
Keur Samba Gueye	256	-	588	588	23%	600	98%
Subtotal Saloum	**2,917**	**-**	**6,707**	**6,707**	**13%**	**6,600**	**102%**
Fabo Dental	1,275	-	1,021	1,021	51%	2,500	41%
Caritas Kolda	604	-	612	612	10%	1,200	51%
Kissal Patim	220	-	480	480	0%	500	96%
COOPAD	191	-	197	197	0%	200	99%
ASED	101	-	350	350	0%	400	88%
FODDE	203	-	271	271	24%	400	68%
Diankacounda	109	-	376	376	42%	400	94%
SEDAB	2,300	-	472	472	18%	4,000	12%
Subtotal Casamance	**5,003**	**-**	**3,779**	**3,779**	**24%**	**9,600**	**39%**
TOTAL Maize	**7,920**	**-**	**10,486**	**10,486**	**17%**	**16,200**	**65%**
Millet - Best Practice Trainings in FY14							
UGPCL Thiaré	1,029	-	569	569	19%	1,200	47%
Baybayat	345	-	124	124	15%	300	41%
Paoskoto	228	-	180	180	4%	300	60%
Gainth Kaye	240	-	202	202	32%	300	67%
Mabo	333	-	120	120	7%	400	30%
Kahi	205	-	104	104	12%	300	35%
Wack Ngouna	276	-	N/A[3]	N/A	N/A	600	-
TOTAL Millet - Saloum	**2,656**	**-**	**1,299**	**1,299**	**17%**	**3,400**	**38%**
Training Totals by Region							
Saloum	8,615	843	10,043	10,755	17%	13,690	73%
Casamance	18,117	3,766	14,594	17,044	55%	28,540	51%
Podor	12,446	0	1,328	1,328	21%	2,850	47%
Matam	17,090	0	3,892	3,892	11%	3,100	126%
Grand Total - All VC	**56,268**	**4,609**	**29,857**	**33,019**	**36%**	**48,180**	**62%**

[3] At the time of reporting, trainings are currently underway so data is not yet available.

Irrigated Rice

Small farmer trainings in the irrigated rice value chain center on two primary themes: **agricultural best practice trainings** ("*Le Chemin du Bon Riz*," or "The path to good rice") and **harvesting best practice trainings**. The content of these courses is reinforced through practical application and field trainings organized around demonstration sites. These demonstration sites also serve the purpose of showcasing newly introduced high value aromatic rice varieties. To facilitate their adoption, farmers are encouraged to get their parcels controlled and approved by the authorities as certified seed multiplication sites.

Since rain season 2013 (FY13), the project has moved its training efforts upstream, from the lower Delta to the small farmer populations of the Podor and Matam areas, in an effort to build the competitiveness of these populations, increase their marketable surpluses and facilitate their linkage to commercial channels. Training programs in these middle-upper valley zones are programmed during the rain season cycle, which straddles two financial years. We will therefore report on the closing of the rain season 2013 program and the launch of the FY14 extension period program.

Rain season 2013 program: The first quarter of FY14 wound up the 2013 rain season program initiated in August 2013and carried out through December 2013. That program comprised 82aromatic rice demonstration sites that covered252ha, where trainings were organized based on the best practice guides produced and distributed by USAID/PCE. The program was delivered by the two paddy marketing cooperatives created in 2010 by ASPRODEB with USAID/PCE support, in the Podor and Matam regions. In total, 24 facilitators trained 3,624 producers, of whom278 were women.

Of these 82 demonstration sites,117.5 ha were controlled and cleared for certification by DRDR licensed seed controllers for an estimated aromatic rice seed production of 582 T. However the producers refrained from completing the certification process because of high transport cost to shuttle their harvest to the Richard Toll grading facility. The cost was deemed excessive with respect to the limited cash market in their area for fully certified seed.

Rain season 2014 program: For the FY14 extension phase, the project adjusted its training approach to work directly with local associations instead of larger (and less efficiently run) cooperatives. This approach has improved program governance and fostered direct ownership by local grassroots organizations. Also for this 2014 round, it was decided not to use demonstration sites as multiplication points because of the lack of processing facilities in Podor and Matam for the time being.

The 2014 rain season training round was launched in August 2014.USAID/PCE support was extended to 10 water users associations with the goal of training 5,950 producers in agricultural best practices (2,850 from Podor and 3,100 in Matam). To achieve this, 228 lead farmers established demonstration sites totaling 126 hectares of aromatic varieties[4]; 36 field agents trained by the project and deployed by the water user associations are delivering the program. At reporting date, trainings have reached 5,220 farmers. USAID/PCE and USAID/Yaajeende jointly support the training programs delivered by the four Matam-based associations – with the Yaajeende project providing additional support to lead farmers and field agents.

Adoption of aromatic rice varieties: The promotion of aromatic varieties is the result of a partnership between USAID/PCE and UNIS-Nord seed producers, which began by the multiplication of an initial stock of 2 tons of recently homologated foundation seeds. As a result of the field demonstration program launched in FY11, aromatic seed varieties, particularly the sturdy and high yielding Sahel 177, are part of today's mainstream SRV seed portfolio and are now routinely multiplied by UNIS-Nord. The association's multiplication program for 2014 covers 60 ha and aromatic varieties represent 18 % of the foundation (pre-base) seed order placed with ISRA.

[4] S177 : 84 ha ; S228 : 22 ha ; S229 21 ha

Le Chemin du Bon Riz Illustrated Chart

USAID
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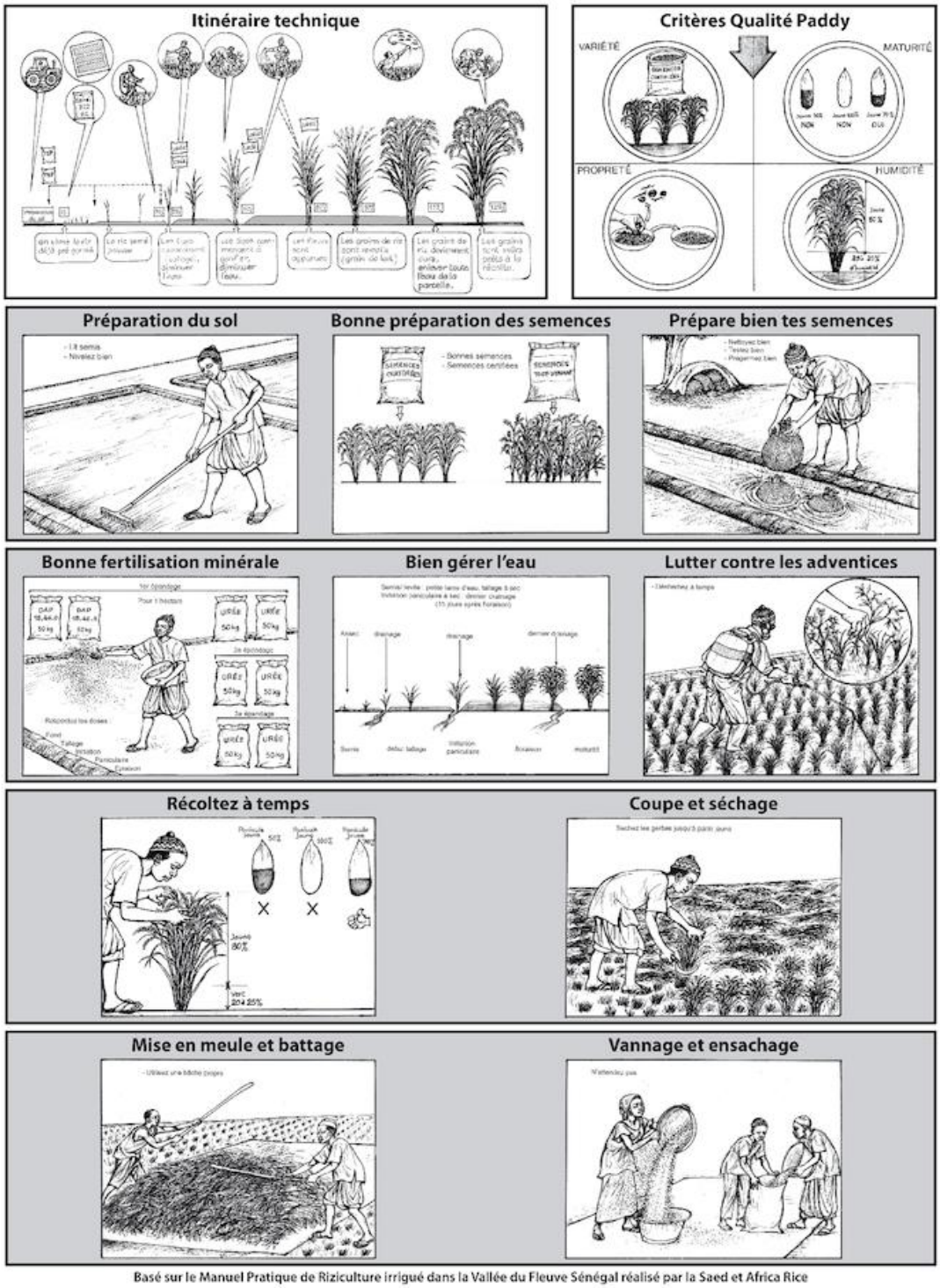
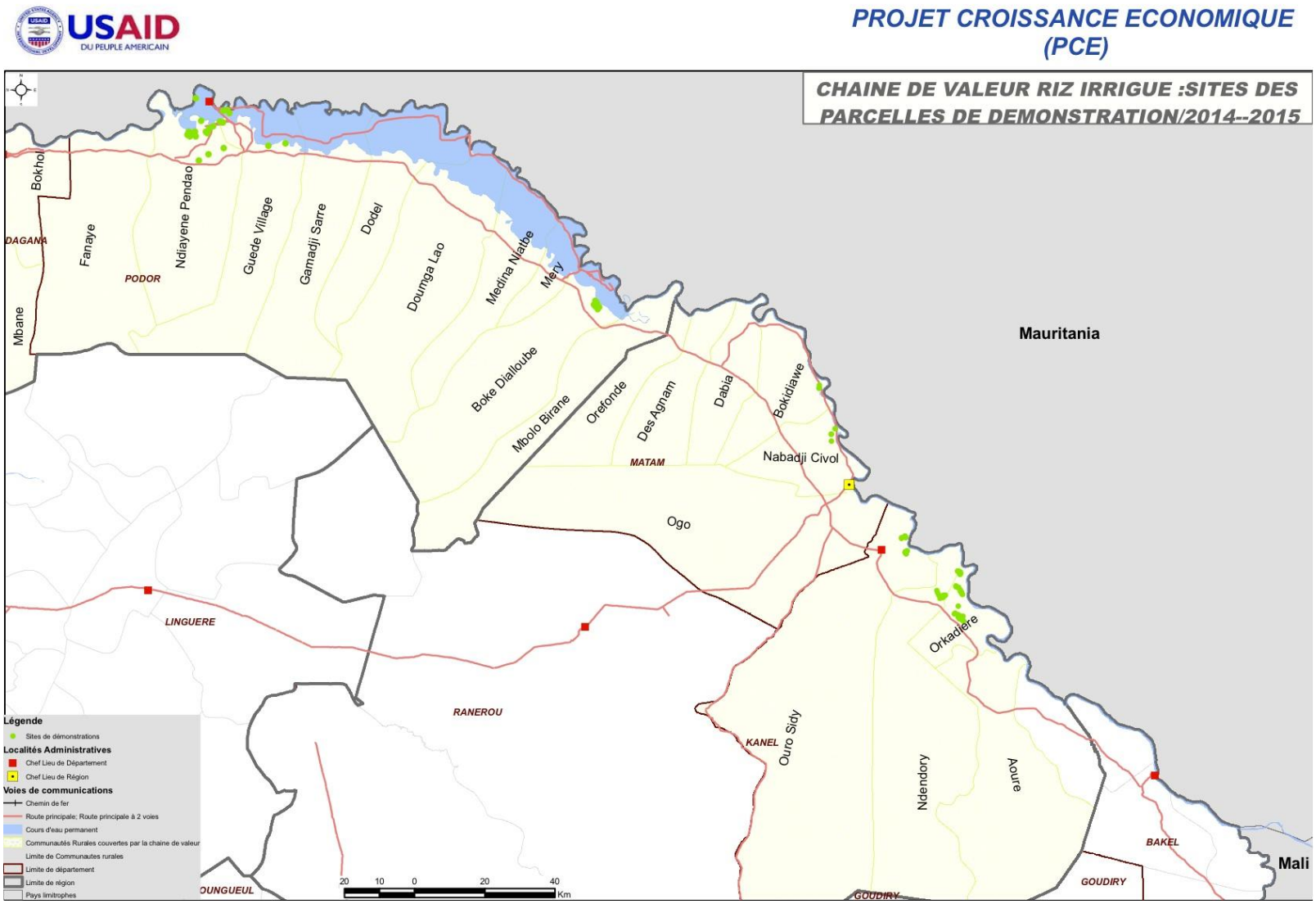
LE CHEMIN DU BON RIZ



Basé sur le Manuel Pratique de Riziculture irrigué dans la Vallée du Fleuve Sénégal réalisé par la Saed et Africa Rice

Map 2. Irrigated rice demonstration sites in FY14



Rainfed Rice

The sustainable dissemination in the South Forest Zone of high-yielding upland and lowland rain fed rice varieties, and associated climate-smart best practices, is a core Feed the Future activity. Initially centered on upland Nerica varieties, the technology portfolio has expanded to lowland varieties, including varieties outside the Nerica portfolio. Beyond certified seeds and improved farming methods, the best practice package disseminated by USAID/PCE partner networks includes conservation farming with ripping for land preparation and mechanized seeding.

A main lesson learned for going to scale with rain fed rice is that the binding constraint is seed availability. Since the 2013 rain season, demonstration sites are now doubling as seed multiplication points in order to scale up access to quality seeds for these new varieties. Partner networks are supported by the project to register the sites with DISEM to allow for certification.

The following summarizes the results of the rain season 2013 program and the achievements at time of reporting for the rain season 2014 program that will conclude February 2015.

Rain season 2013 program: The debriefing of the rain season 2013 program held in Kolda in March 2014 highlighted the following results, which consolidate the achievements reported by USAID/PCE's 9 partner networks:

- 5 varieties of Nerica rice have been popularized, 2 of which were lowland varieties;
- 10,640 producers (52% women) have been reached by rainfed rice best practice trainings,
- 8,570 farmers (3,897 women) have adopted improved seeds and parts of the technological package, covering 4,500 ha and producing 8,458 T , mainly for self consumption;
- participant farmers had average yields of 1.9 T/ha;
- 490T of seeds were produced.

Rain season 2014 program: From 2 T in 2010, the production of certified seeds has surpassed 490T in 2013. Building on lessons learned from the first three years of implementation, the FY14 extension period was the occasion for USAID/PCE to expand best practice trainings and have seed production break the 1,000 T mark. To this end, the 2014 rain season program has expanded the number of partner networks to 14 and is supporting the establishment of 741 demonstration/multiplication points (508 upland and 233 lowland); this will expand program coverage by 32 additional rural communities for a total of 112 in the FTF catchment area for rain fed rice. In total, 110 field agents and 764 lead farmers were trained to deliver best practice trainings, which are expected to reach 16,455 farmers by the end of the production/harvest cycle. As part of their initial cost share agreement with USAID/PCE, the five new networks were granted a total of 220 rippers and 38 seeders. At reporting date, the 2014 trainings in best practices and conservation farming reached 12,852 farmers, of which 60% (or 9,635) were women.

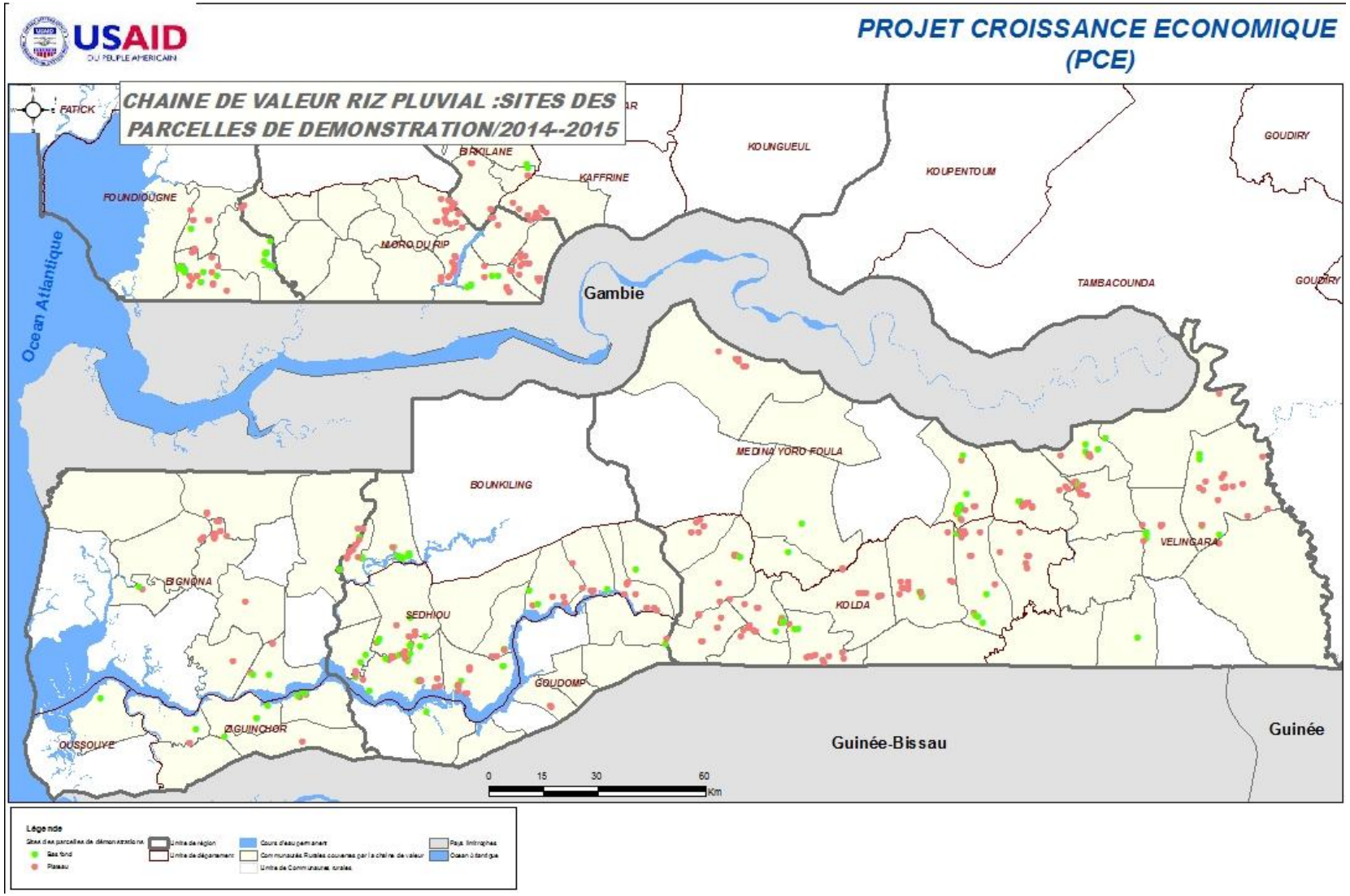
Rain fed rice seed multiplication: The following table presents the varieties being showcased and multiplied through the program. This portfolio was established based on the recommendations made by the farmer networks during last year's debrief. As part of its cost-share support to the network beneficiaries, USAID/PCE procured 62,740kg of certified seed from authorized sources within Senegal[5]. This volume allows for a potential of 1,200T of seed that could theoretically be admissible for certification in FY15 – however actual results depend on 2014 rainfall patterns and the intentions of networks and the farmers to fully bear the cost of certifying this output – which requires it being transported to Kolda for processing at the new seed-processing center, created under a PPP between USAID/PCE and SEDAB.

[5] Last year, seeds were also sourced from Mali but for 2014 all SEDAB seeds were sourced from within Senegal.

Table 2 - RS2014 Rainfed Rice Multiplication Program					
Variety	**Type**	**Pre-Base**	**Base**	**R1**	**Origin**
NERICA 1	Upland	0	160	520	Reprosener and partner networks
NERICA 4	Upland	0	11,980	16,320	Reprosener and partner networks
NERICA 6	Upland	0	160	520	Reprosener and partner networks
Subtotal Upland			12 140	17,360	
NERICA S44	Lowland	0	0	280	ISRA
BG 90-2	Lowland	120	3,000	3,000	ISRA and partner networks
Sahel	Lowland	240	0	6,320	ISRA and partner networks
DJ12-159	Lowland	0	360	0	Reprosener
DJ12-512	Lowland	0	0	0	N/A
ITA-123	Lowland	0	0	0	N/A
IR-1529	Lowland	40	0	10,480	ISRA and partner networks
ROK 5	Lowland	0	0	0	N/A
Subtotal Lowland		1,687	3,360	20,080	
TOTAL (kg)		**2,087kg**	**15,500 kg**	**37,440**	
Area (ha)		**26**	**194**	**468**	

Upland rice technology is not only about certified seed of new varieties such as NERICA but also requires the adoption of line planting, an attention to seeding density and regular weeding. Since 2013, Malick Sada Sy (shown above right with a lead farmer) was formerly Wula Nafaa's conservation farming specialist and is now USAID/PCE's rain fed rice value chain manager. Malick has introduced Casamance rice farmers to conservation farming's low tillage technologies that mitigate the risk of rainfall interruptions, improve fertility and boost yields to more than 2T/ha.

Map 3. Rainfed rice demonstration sites in FY14



Upland and lowland rainfed rice best practice illustrated charts

Maize

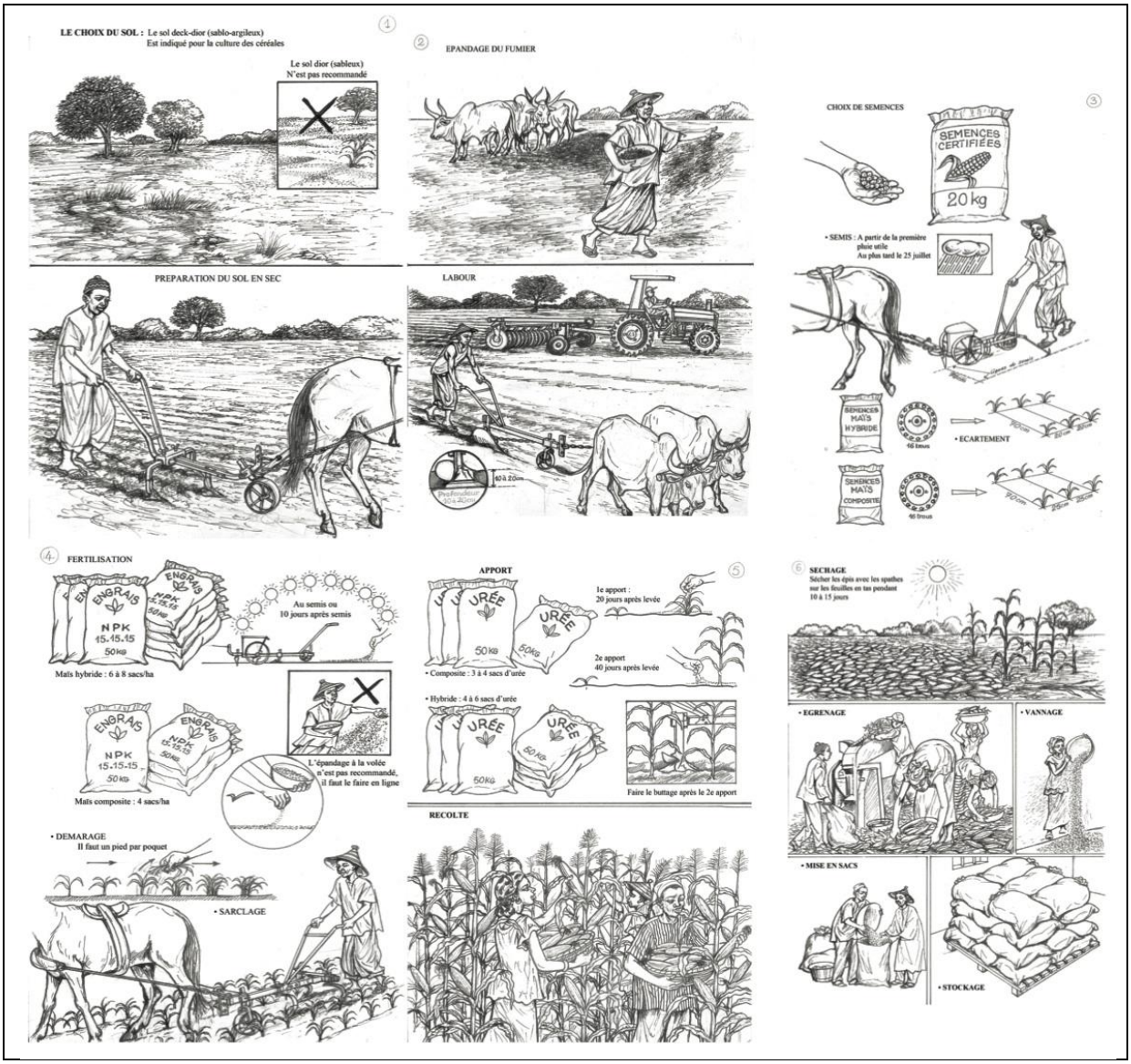
Both in the lower Saloum and in Casamance, maize farming generates sufficient surplus to be deemed a cash crop – even though Casamance farmers will tend to retain a greater part of their harvest for consumption. The best practice trainings, delivered by the SFZ farmer networks supported by USAID/PCE, cover three core best practice capacity building themes: cultivation methods including fertilizer; conservation farming; and testing/demonstration of improved OPV and Hybrid varieties. Field demonstrations target network members who are engaged in some form of contractual seasonal credit, as well as non-member farmers from the surrounding community who might be interested in adopting the technological package and in eventually joining the organization as a full member. Because most maize demonstration sites display hybrid seeds, they are not used as multiplication farms as has been the case in the rice value chains.

Rain season 2013 results: The results of the 2013 rain season program, which was launched in the latter part of FY13, were debriefed in February 2014 during the second quarter of FY14. The impact of that season's training program was summed up by a significant increase in average yields of 2.94 T/ha for composites and 3.64 T/ha for hybrids for slightly less than average rain fall; a 58% increase in yields of composite maize in the Saloum and 43% in Casamance compared with the yields from the 2012/2013 rain reason. When compared with RS2012 yields (which did not exceed 1.5 T despite good rainfall), these results demonstrated to farmers that compliance with technical approaches and best practices (seed density, adequate tillage, timing and precision of fertilizer application, field maintenance, use of specific certified seed varieties etc.) create the conditions for significant yield increases and significant income gains.

FY14 extension: The objective for the FY14 extension is to extend training services to new producer networks. The 2014 rain season productivity training program for maize was launched with the objective of reaching 16,200 producers. This was done through increasing the number of farmer networks to 12, adding 2 Saloum and 4 Casamance based organizations to the 6 networks that were engaged in last year's program. Many of these networks were already engaged with USAID/PCE in rain fed rice value chain development but are now diversifying crops, through the support of PCE, to engage in maize production as well.

At the time of reporting, the 2014 best practice training program figures reached close to 10,500 farmers. The essential role lead farmers play in taking capacity building activities to scale was demonstrated by FEPROMAS, whose 2,087 farmer membership served as the platform for delivering trainings in their catchment areas, resulting in 5,120 farmers trained through FEPROMAS alone in FY14. Other farmer networks are building their capacity for outreach services to their membership and surrounding farmers as well. Unfortunately, private firm SEDAB is not performing as well as expected, even though the firm has demonstrated strong supply chain leadership in ensuring a timely supply of inputs at flexible credit conditions to maize farmer organizations across the SFZ.

Maize best practice illustrated chart



Map 4. Maize demonstration sites in FY14

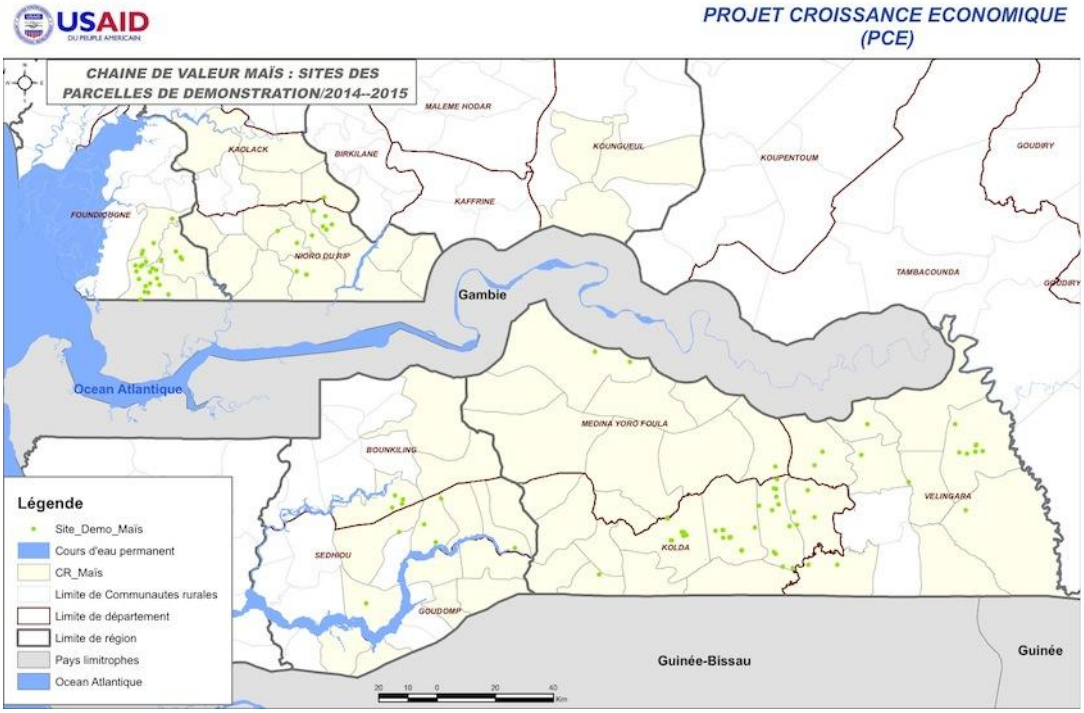


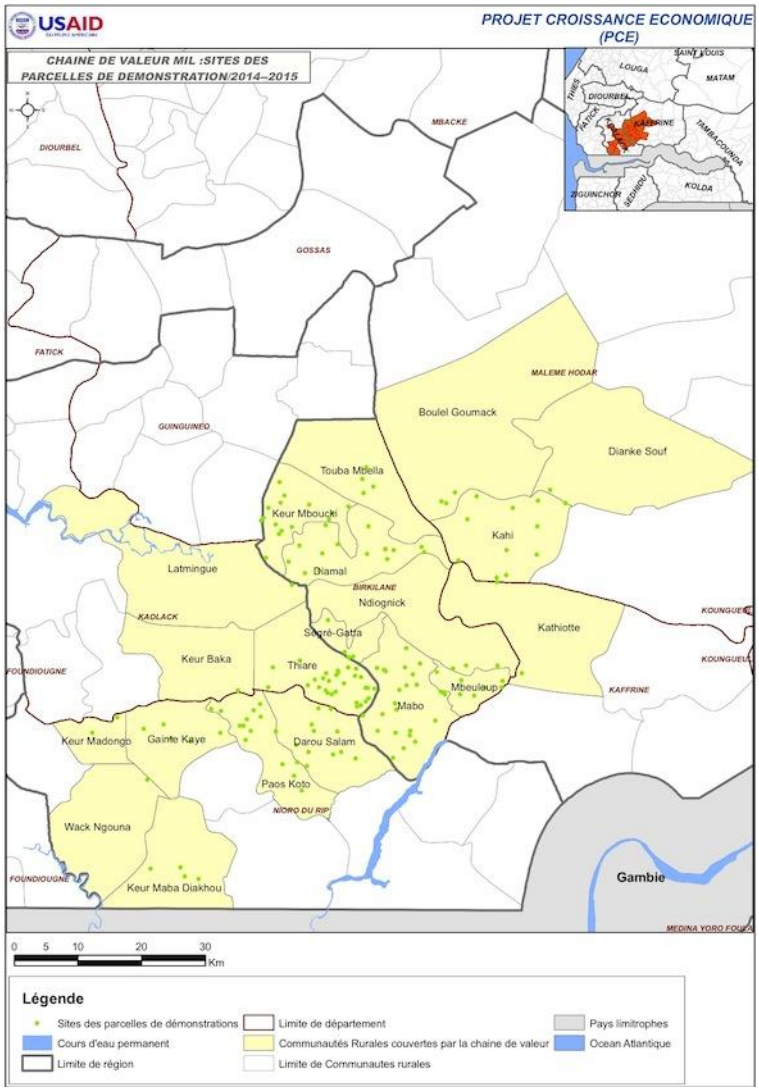
Table 3 - RS 2014 Maize Demonstration Program					
Variety	**Type**	**Seed qty**	**Sites (#)**	**Planted Area (ha)**	**Seed Origin**
SNK 2778	Hybrid	120kg	6	6 ha	CAPCI/ Monsanto
PAN 12	Hybrid	120kg	6	6 ha	Tropicasem/ Pannar
PAN 53	Hybrid	120kg	6	6 ha	Tropicasem
Total Maize program – RS2014		**360kg**	**18**	**18 ha**	

Millet

The millet value chain productivity program's scope is limited to millet groups engaged in contractual commercial programs associated with some form of input credit mechanism through banks or mutual savings funds. The objective is to build the skills of member farmers so they attain yield levels that allow for a sizeable marketable surplus, beyond household food security requirements. Best practice trainings focus on use of certified seed of the well-known Souna 3 variety; striga prevention; conservation farming, and fertility management.

The RS2014 program was augmented by the addition of a seventh group to the initial six. The seven groups established a system comprised of 25facilitators and supervisors for best practice trainings and new technology application has been established for the current cycle. In total 146demonstration points were set up for field trainings. Outreach figures for this program have reached 1,299 at time of reporting.

Map 5. Millet demonstration sites in FY14



Quality Control Program

A formal grading system for the cereal sector in Senegal was previously unheard of. Prior to USAID/PCE, individuals relied on empirical techniques to assess grain quality; such as observing color or assessing moisture through touch of hand. This led to subjective norm definitions and unverifiable assessments, creating sources of contention and mistrust between grain buyers and sellers.

During FY13, USAID/PCE pioneered the development and piloting of consensual normative systems for paddy rice, maize and millet that set the basis for strict and verifiable controls of grain quality. The norms cover criteria and conformity thresholds, and also set the sampling and assessment procedures.

Implementation was pursued in FY14: for each value chain, the main criteria were selected (moisture, impurities, etc.– see illustrated charts) as a basis for contracting, and a methodology for sampling, weighing, and criteria testing was defined, complete with a documentation system to allow traceability of batch controls. The pilot led to significant advances in the quality of cereals that have since been put on the market by the farmers, leading to increases in market prices.

Irrigated Rice

1,626 producers (14% of whom were women) were trained in quality control compliance during the 2013-2014 rain season. Thirty control points have been equipped with 14 humidity meters, 14 industrial scales, 14 precision scales, 14 sensors, and 3,500 pallets.

During the FY14 extension period, the number of irrigated rice producer networks in the quality control program has increased dramatically from 6 to 23, comprising an important contingent of women-led groups (13 total, 10 of which are new for RS2014). The program's objective will be to train 9,900 producers and control more than 50,000 T of paddy rice at75 consolidation points spread across the SRV (see Map). At time of reporting, trainings have yet to begin in earnest and will concern the upcoming rain season harvest which will start Q1 of FY15.

As a preliminary step to the extension program, an event called "Quality Day" ("*Journée Qualité*") was organized with the support of SAED and other partners to carry out an impact assessment of the paddy quality control process with 6 leading producer networks in the Dagana Department. This has represented a major innovation in this value chain and marks a milestone for the transfer of ownership of improved technologies to mainstream extension institutions such as SAED and SRV farmer Unions. The end result of these debates was the adoption by rice inter-professional body CIRIZ of the quality control criteria piloted by USAID/PCE as the contractual specifications used for setting paddy rice pricing scales.

The following tables provide details regarding the FY14 trainings and pilot application of Irrigated Rice Quality Control by USAID/PCE partners. The first table shows trainings that were conducted in FY14 for the 2013 rainy season, which are shaded in grey. Female participation in the FY14 program is 22% versus 16% in the "Le Chemin du Bon Riz" farming practices program. This reflects the orientation of the quality control program in the SRV to involve women's groups, who tend to be more involved in marketing and small scale processing.

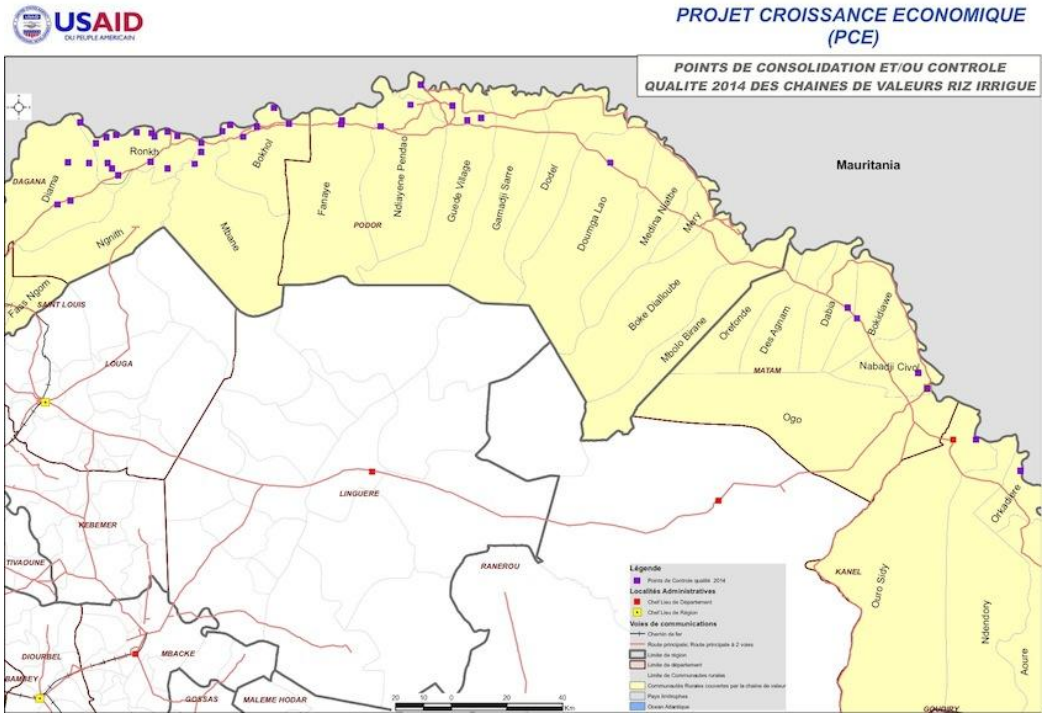
The second table shows results to date for irrigated rice quality control procedures carried out at the sites identified on the adjoining map. The table provides the acceptable criteria thresholds, then lists the average results achieved by each organization. It is important to note the overall respect of the humidity criteria, acceptable impurity levels and generally satisfactory milling rates, which used to be systematically lower than 60%, have exceeded the 65% benchmark in several occurrences. A 5% gain in processing yields mean more sales for the same raw material. It is direct profit for the value chain that can be evaluated at 12 CFA per kg of raw material or, from the point of view of a mid-sized mill processing 5,000 tons annually: an additional operating margin of more than US $100,000.

Table 4.FY14 Irrigated Rice Quality Norms Training Participation							
Partner Network	**PO Target 2014/2015**	**Achievement FY14**	**Men**	**Women**		**Performance to Date[6]**	**Season**
Feprodes	-	95	0	95	100	-	RS2013
Mbodj et Frère	-	282	282	0	0%	-	RS2013
Naxadi Derete	-	416	380	36	9%	-	RS2013
Vital	-	308	283	25	8%	-	RS2013
CNT	-	455	405	50	11%	-	RS2013
UFP	300	105	0	105	100	35%	CSC
Abdoul Aziz Sy	300	122	40	82	67%	41%	CSC
Fatima Bintou Diallo	300	32	28	4	13%	11%	CSC
Khar Yalla Gueye	300	32	25	7	22%	11%	CSC
Teranga Entreprise	300	44	0	44	100	15%	CSC
Thiaytou	300	49	44	5	10%	16%	CSC
La Paysanne	450	15	12	3	20%	3%	CSC
Dramécounda	300	254	192	62	24%	85%	CSC
Refer Vallée	300	300	75	225	75%	100%	CSC
Pellital	600	645	621	24	4%	108%	CSC
Deggo Bokk Jomm	300	27	1	26	96%	9%	CSC
Malal Yoro Gueye	300	92	61	31	34%	31%	CSC
Rassoulna	300	35	19	16	46%	12%	CSC
Kobilo	450	88	48	40	45%	20%	CSC
Union Matam	600	592	559	33	6%	99%	CSC
SP1 Fanaye	450	316	273	43	14%	70%	CSC
Total	**5,850**	**4,304**	**3,348**	**956**	**22%**		

Table 5.FY14 Irrigated Rice Quality Control Measurement Results									
Partner Networks	**Quantity Controlled target (Ton)**	**Quantity Controlled Actual (Ton)**	**Achievement**	**Ave Bag Weight (Kg)**	**Moisture (%)**	**Impurities (%)**	**Green grains (%)**	**Milling Rate (%)**	**Season**
Norms				**80kg**	**12-14%**	**1%**	**1%**	**63%**	
FEPRODES		187		83.46	13.58	2.06		60.04	RS2013
Coumba Nor Thiam		1,784		82.19	13.72	1.05	0.65		RS2013
Mbodj et frères		554		84.00	11.66	1.97	2.54	61.88	RS2013
Naxadideret		431		83.00	14.33	1.36	3.01	57.61	RS2013
UFP Ross Béthio		354		85.00	14.03	0.60	0.75		RS2013
Vital		356		80.61	13.65	2.19		62.13	RS2013
UFP Ross Béthio	800	49	6%	84.50	14.50	0.85	0.08	62.40	CSC 2014
Fatimata Bintou Diallo	1,000	249	25%	85.00	13.08	0.40	1.06	66.74	CSC 2014
La Paysanne	1,500	112	7%	85.00	14.35	1.00	0.92	66.59	CSC 2014
Teranga Entreprise	6,000	647	11%	82.60	14.32	0.20	0.08	63.40	CSC 2014
Thiaytou	3,000	576	19%	83.82	13.68	0.69	1.36	62.99	CSC 2014
Abdoul Aziz Sy	2,500	1,477	59%	83.00	12.48	1.53	0.03	62.83	CSC 2014
Pellital	8,000	4,015	50%	85.95	12.55	0.58	0.54	65.82	CSC 2014
Khar Yalla Gueye	1,500	1,002	67%	83.00	12.44	0.45	0.65	63.60	CSC 2014
	24,300	**11,792**		**83.65**	**13.46**	**1.07**	**1.14**	**63.00**	

[6] At the time of reporting, the 2014 harvest and associated training activities are underway and numbers not yet available. These will be included in FY15 Q1 report.

Map 6. Irrigated rice quality control points (updated with 2014 extension results)



Rice quality training at GIE Dramecounda. In addition to humidity testing and calculation of foreign matter percentages, rice quality testing includes the estimation of milled rice yield and a verification of any stains due to storage under humid conditions. This requires learning how to operate the low-cost micro-milling machine that provides farmers a quick estimate milling yield which is the percent of white rice obtained from a sample of paddy rice. A counter-test is usually performed on a more sophisticated machine at the rice mill. In time, estimated yield will become a pricing benchmark that rewards quality.

Rice quality control illustrated chart

Maize

The maize quality control program was launched with FEPROMAS in FY13 for the rain season 2012 harvest. In FY14, farmer groups Keur Samba Gueye and Fabo Dental Lislam joined the program for the rain season 2013 harvest, which took place during the months of November 2013 through February 2014. During this cycle, 1,077 producers (105 of whom were women) were trained in quality standards and quality grading processes for Maize. Trainings were presented from illustrated technical guides and included segments on sampling, testing protocols and traceability data collection for reporting on quality standards and grading. FEPROMAS completed sessions using a low-cost video.

To support the pilot of the quality controls at farm level, the following materials for quality control, collection, and storage were granted by USAID/PCE to the networks: 21 humidity meters, 62 sieves, 31 multi-level sampling rods, 21 one-ton industrial scales, 21 precision scales, and 297 pallets.

The following tables provide details regarding the maize quality control trainings as well as the results for FY14 maize quality control measurements. Nearly 300 tons have been fully documented through the quality control system during FY14. The controls served as the basis for a 500 T contract with AVISEN.

Table 6. FY14 Maize Quality Norms Training Participation

Partner Network	Achievement Rain Season 2013/2014	Men	Women	
Fepromas	1,035	937	98	9%
Keur Samba Gueye	42	40	2	5%
Fabo Dental	35	30	5	14%
Total	1,077	1,007	105	10%

Table 7. FY14 Maize Quality Control Measurement Results

Partner Networks	Quantity Controlled (Ton)	Moisture (%)	Impurities (%)	Foreign Matters (%)	Defective Grains (%)	Moldy Grains (%)
Norms		12%-13%	2%	1%	5%	0%
FEPROMAS	278	11.54	0.16	0.30	0.49	
Keur Samba Guèye	12	12.27	0.61	0.29	0.51	0.27
Total / Average	290	11.91	0.39	0.30	0.50	0.27

http://youtu.be/qQ-gQ64ioY0

FEPROMAS quality maize is considered by AVISEN to be on par with imported origins.

Maize quality control specifications

Millet

The millet quality control program is focused on networks that have developed a collective and proactive marketing strategy, targeting processors who require high-quality, graded millet for the production or preparation of processed cereals and dairy products such as Thiakry. Thus the programs are linked to prior contracts with processors such as Mamelles Jaboot. They also reinforce the capacity of groups to fulfill post-season orders by Laiterie du Berger and other such firms.

During FY14, 1,380 beneficiaries (facilitators, database managers, and producers), including 237 women, were trained in quality control standards and procedures for millet. In addition, two low-cost instructional videos on using humidity meters were developed and disseminated to partner networks.

6 networks were engaged in the quality control program for the rain season 2013 harvest ending in March 2014, each network establishing a quality control points at a designated warehouses USAID/PCE completed the geo-referencing of storage facilities accessible to the millet program, representing a total capacity of 450 T.

The networks benefited from in-kind grants comprising quality control equipment (6 humidity meters, 6 industrial scales, 6 precision scales, and 12 sampling rods).All 6 networks also received support to acquire duly branded and labeled bags for a total of 12,000 x 50kg bags.

As a result of quality control support provided by the project, 300Tof quality millet was sold to two main processing facilities (200T to “Mamelles Jaboot”and100T to “La Laiterie du Berger”).

Table 8. FY14 Millet Quality Norms Training Participation

Partner Network	Achievement Rain Season 2013/2014	Men	Women	
Gainth Kaye	27	27	0	0%
Mabo	381	289	92	24%
Wack Ngouna	519	494	25	5%
Thiaré	300	200	100	33%
Paoskoto	136	118	18	13%
Baybayat	17	15	2	12%
Total	**1,380**	**1,143**	**237**	**17%**

Table 9. FY14 Millet Quality Control Measurement Results

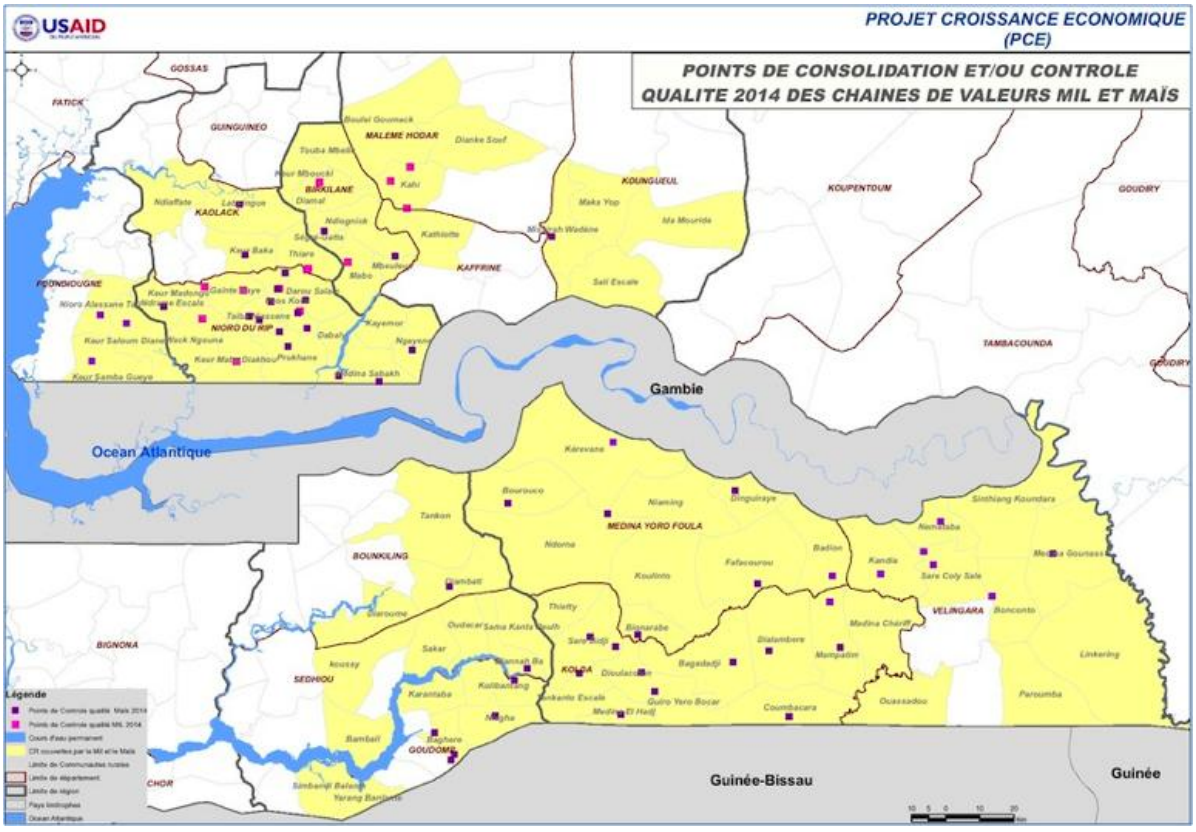
Partner Networks	Bags Sold (#)	Average Weight per Bag (Kg)	Moisture (%)	Presence of immature grains & pesticide residue	Presence of straw	Presence of Other Foreign Matters	Average Impurity (%)	Total Quantity Controlled (T)
Norms			**12%**	**No**	**No**	**0.3%**	**2%**	
Baybayat	501	56	11.84%	No	No	99% < 2B	N/A	28.2
Paoskoto	793	54.5	10.8%	N/A	N/A	N/A	1.4%	43.2
Mabo	847	61.55	8.6%	N/A	N/A	N/A	1.18%	52.1
Wack Ngouna	2340	50	9%	N/A	N/A	N/A	1.4%	117.0
Thiaré	1920	56.23	12.34%	No	No	100%< 2B	N/A	108.0
Total/Average	**6401**	**55.724**	**10.516**				**1.33%**	**348.5**

Millet quality control illustrated chart

http://youtu.be/M_qkQEZUm3o

Quality millet stored in Mamelles Jaboot branded bags at Wack Ngouna's warehouse on recycled plastic pallets.

Map 7: Maize and millet FY14 quality control points



Contract Facilitation

The sustainable linkage of small farmers to the other private sector actors that compose Senegal's grain value chain is a core element of the FTF strategy. For USAID/PCE, this task is led by the Value Chain component and engages the full technical team (Access to Capital, Policy, Capacity building).

In a Value Chain perspective, **contract farming** must evolve beyond the confirmation of a grain order between a group of farmers and a buyer that limits itself to setting a transaction price and payment terms. It must also avoid overburdening the farmer-buyer relationship with pre-season financing and pricing guarantees. Value chain contract facilitation as practiced by USAID/PCE specialists progressively links farmers to the full supply chain ecosystem and improves the coordination of activities, information exchange, and the adoption of common principles among different value chain actors to meet market needs.

To date, the project's facilitation work has enabled the integration of small farmers in contractual arrangements that span the full supply chain: credit institutions, input suppliers, equipment providers, market consolidators, logistics services, and buyers of grain and seed (rice and animal feed mills, dairy processors, seed dealers).PCE's work in this area has effectively demystified the contract farming process and established contracts as a common practice in today's value chains.

Significant progress was achieved in FY14 in the rice, maize and millet value chains:

- The development of pricing mechanisms integrating costs, quality standards and clear incoterms[7];
- Integration of insurance coverage and grain inventory, as an integral part of loan collateral for input loans and commercial credit facilities,
- Collective input procurement contracts with agro-dealers that include pre-season supplier financing;
- Intra-network contracts that formalize the relationship between local farmer organizations and their membership and govern production loans and in-kind reimbursements for both grain and seed production;
- Farmer-processor procurement contracts that integrate quality norms and testing protocols as a central component, including the shift from "per-bag" pricing to exact weight and the inclusion of sliding-scale pricing linked to pre-defined thresholds for critical quality parameters such as humidity and foreign matter.
- Development of a market for land preparation services (soil tillage, harvesting/shelling) including leasing equipment.

The following tables show the production and farmer level sales figures for the value chain networks supported directly by USAID/PCE. Prior to FY14, these have included the commercial grains networks for irrigated rice, maize and millet. In FY14 we have added project-supported networks that contracted the multiplication of rainfed rice seeds with their lead farmers. The data included in the table is aligned with BFS cut-off guidelines: it provides actual results for the production/marketing cycles concluded during the fiscal year. FY14 figures therefore concern contract sales for all grains and seeds for the 2013-2014 rain season and, in the case of irrigated rice, the 2014 dry season cycle that ends in September.

The following paragraphs provide further details on the evolution of the contracting frameworks for the irrigated rice, rainfed rice and millet value chains in FY14.

[7] Incoterms rules are intended primarily to clearly communicate the tasks, costs, and risks associated with the transportation and delivery of goods. They are often stated as acronyms: FOB, CIF, ExWorks etc.

Irrigated Rice

Specifications for setting paddy rice prices were established through consensus-building meetings with farmers on quality grading methodologies. The meetings convened by CIRIZ and SAED led to the formalization of a quality based contractual framework that is now used by seven rice mills procuring rice through the CNCAS integrated credit system.

Senegal River Valley Irrigated rice Contract network	Table 10.FY2014 Irrigated Rice Contract Farming Results Rain Season 2013 + Dry Season 2014									
	Contracts (#)	Small-holders under contract (#)	Area under contract(ha)	Total Production (T)	Contract Sales		Non-Contract Sales		Total Sales	
					Prod (T)	Value ('000,000 CFA)	Prod (T)	Value ('000,000 CFA)	Prod (T)	Value ('000,000 CFA)
CNT	407	1,144	5,544	35,773	11,960	1,495	8,187	1,023.38	20,147	2,518.38
Naxadi Derete	110	340	1,927	12,785	3,496	437	3,699	443.88	7,194	880.88
Mbodj et Frère	628	926	2,885	17,425	5,692	711.5	4,113	493.56	9,806	1,205.06
UFP Ross Béthio		105	113	542	-	-	496	59.52	496	59.52
Coop Matam		156	103	494	-	-	213	25.56	213	25.56
Feprodes	51	56	66	317	178	22.25	95	11.4	273	33.65
Coop Podor		415	276	1,590	-	-	91	11	951	10.92
Vital	30	875	656	3,149	510	63.75	945	113	1,455	177.15
Abdoul Aziz Sy	6	296	371	2,523	1,191	148.88	-	-	1,979	148.88
Fatimata Bintou		15	31	241	79	9.88	162	19.44	241	29.32
Khar Yalla Gueye	1	249	183	1,526	1,002	125.25	305	36.60	1,307	161.85
Teranga		210	151	1,018	648	81.00	204	24.48	852	105.48
Thiaytou	22	1,382	581	4,471	132	16.50	1,244	149.28	1,376	165.78
Al Thiaka		251	100	673		-	359	43.08	359	43.08
Rasoulna	32	35	26	163	54	6.75	33	3.96	87	10.71
La Paysanne		15	24	112	-	-	112	13.44	112	13.44
Malal Yoro		587	599	3,931	-	-	1,535	184.20	1,535	184.20
Pélital		2,638	1,424	8,258	-	-	4,859	583.08	4,859	583.08
GIE Takku Liguey		100	64	469	-	-	296	35.52	296	35.52
Dramécounda		121	253	1,279	-	-	407	48.84	407	48.84
Réfer Vallée		129	71	482	-	-	357	42.84	357	42.84
Total Irrigated Rice	**1,287**	**10,045**	**15,447**	**97,221**	**24,942**	**3,117.75**	**27,712**	**3,366.38**	**54,302**	**6,484.13**

Rainfed Rice

For the first time, 735 contracts were signed between the networks and lead producers, securing production and marketing of rainfed rice seed multiplication in demonstration sites.

South Forest Zone Rain fed rice Seed & Grain (1) Contract Networks	Table 11.Rain Season 2014 Contracts (results to be counted in FY15)		
	Smallholders (#)	Land (Ha)	Estimated Production (T)
Assolucer	76	80	100
AVSF	40	24	30
Caritas Kolda (1)	1,550	465	581
Caritas Ziguinchor	69	51	64
Casades	35	35	44
Coopad	52	38	48
Fabo Dental	88	85	106
Keur Saloum Diané	31	29	36
Nioro Alasane Tall (1)	217	96	120
Kissal Patim (1)	289	145	181
Ased	27	15	19
Fodde	30	28	35
Keur Samba Gueye	61	30	38
Symbiose	89	55	69
Reprosener	87	66	83
Total Rainfed Rice	**2,741**	**1,242**	**1,552**[8]

[8]Production is estimated on the basis of yields inferior to the 1.8T/ha average due to erratic rainfall in RS2014

Maize

During FY14, the 5,453 farmers under contract with FEPROMAS and SEDAB for the 2013 rain season produced 25,014T of maize of which 12,240 was marketable, valued at 1,800,000,000 CFA (3.6 million US$). Of the total marketable volume of maize produced by farmers, 500 tons were sold through formal contracts with industrial firms and agro-dealers and the remaining volume was sold through local trading channels. The projected figures for the marketing of the 2014 rain season harvest, which begins in November, show a drop in volume despite an increase in planted area from 8,708 ha in RS2013 to 11,825 ha in RS2014. This is an estimation of the negative impact on yields of the erratic rainfall encountered this year. Actual yield figures will be used to report FY15 results. A notable lesson was learned through this contract negotiation, as AVISEN had initially requested to contract a higher volume but farmers resisted committing more yields to a fixed-price contract knowing that they could get better prices on local markets for their high quality grain.

Network	Table 12.FY2014 Maize Contract Farming Results						
	2013 rain season program - FY14 results				2014 rain season program (results to be counted 2015)		
	Smallholders (#)	Land (Ha)	Total Production (T)	Farm Sales (T)	Smallholders (#)	Land (Ha)	Production Forecast (T)
Fepromas	2,003	4,052	11,492	4,357	2,087	4,868	9,736
Keur Samba Gueye	107	102	309	107	256	302	604
Keur Saloum Diané	*New partners added in FY2014*				258	290	580
Nioro Alasane Tall					316	316	632
Subtotal Saloum	2,110	4,154	11,801	4,464	2,917	5,776	11,552
Sedab	2,237	3,139	9,138	5,940	2,300	2,529	5,058
Fabo Dental	451	1,166	3,382	1,549	1,275	2,145	4,290
Kissal Patim	109	104	291	147	220	220	440
Caritas Kolda	546	145	402	140	604	604	1,208
Ased	*New partners added in FY2014*				101	59	118
Fodde					203	159	318
Coopad					191	200	400
Diankacounda					109	133	266
Subtotal Casamance	3,343	4,554	13,213	7,776	5,003	6,049	12,098
Total Maize	5,453	8,708	25,014	12,240	7,920	11,825	23,650

Millet

2,529 producers from 6 networks registered in the marketing program in RS2013 with repayments estimated at 650 T.

Network	Table 13. FY2014 Millet Contract Farming Results						
	2013 rain season program - FY14 results				2014 rain season program (results to be counted 2015)		
	Smallholders (#)	Land (Ha)	Total Production (T)	Farm Sales (T)	Smallholders (#)	Land (Ha)	Production Forecast (T)
Mabo	299	241	269	161	333	365	292
Thiaré	1,128	931	900	540	1,029	1,029	823
Wack Ngouna	532	546	522	313	276	280	224
Gainth Kayes	150	154	185	111	240	240	192
Paoskoto	200	249	247	148	228	273	218
Baybayat	220	254	159	95	339	338	270
Kahi	*Added for 2014*				205	211	169
Total Millet	2,529	2,375	2,282	1,368	2,650	2,736	2,189

Databases and Information Systems

When designed and utilized properly, databases are critical decision-making and management support tools. USAID/PCE has developed extensive informative databases in a simple, accessible, and easily transmissible excel format. USAID/PCE databases contain information on producer demographics, agricultural production monitoring, financing, marketing, and more. Use of these databases has enabled partner networks to better monitor and manage their input needs, thus raising their credibility with financial institutions, suppliers, and other support partners. For PCE project management, databases are also used to inform and track progress against performance indicators.

Farmer Tracking Systems

For database activities, an internal network of facilitators and database managers support farmers in data consolidation and analysis. The project team conducts trainings early each season to share and validate tools, methods, and database models. In addition, consultants are hired by the project and assigned to partner networks to help them better manage and leverage their data tracking and to inform debriefing meetings they conduct for their members. The adjoining table shows the extent of farmers tracked by the PCE project databases.

GPS Mapping

The technical teams supporting networks (facilitators, database managers) have been trained in the use of GPS and in Mapsource and Quantum GIS software utilization. Partner networks use GPS and Mapsource to verify the land area of each farmer plot and to create plot layouts. Knowing the exact area of a plot allows the farmer to accurately determine their seed and fertilizer needs and estimate yields more reliably. Quantum GIS is used by partners to map their operations, including production areas, member distribution, and demonstration sites for different technologies.

Quality Tracking

The standardized reporting and analysis of quality measurements ensure product traceability and quality maintenance. PCE has provided numerous instruments and tools to farmers to help them document and track their quality control results, such as standardized data collection forms and database model templates. The use of these tools has infused value chain development activities with reliable data on yields and product quality, which has proved invaluable for demonstrating—to all value chain actors—the benefits of adopting new practices. As such this data has also been an essential asset for other components of PCE's work such as contract farming and seed sector development.

Dimagi—CommCare

For monitoring network performance and activities, PCE introduced an ICT-supported M&E system, called CommCare, which provides a platform for rapid collection, transmission, and consolidation of data. A mobile application is used to collect and store data on a smartphone, which automatically updates a cloud-based database as soon as the phone is connected to the internet. This application was piloted by UGPCL in Thiaré to closely track the plots of 100 producers, generating real-time data in a common database for the network. The CommCare application has also been used throughout the quality grading process conducted by the network. An assessment was conducted at the end of the pilot phase, and the conclusions enabled PCE to improve and extend the approach to another network (FEPROMAS), who is using it to monitor marketing and quality control points. PCE also intends to test this approach for agronomic monitoring and planning in the upcoming season.

Table 14. Farmer Tracking System						
Network	2012		2013		2014	
	Total	% F	Total	% F	Total	% F
Irrigated Rice						
FEPRODES	412	60%	110	65%		
UFP	236	100%	25	100%		
GIE MBODJ ET FRERES	482	0%	497	0%		
Naxadideret	50	0%	29	10%		
Coumba Nor Thiam	842	8%	442	0%		
VITAL	-	-	380	10%		
Coopaddy Podor	-	-	409	7%		
Coopaddy Matam	-	-	156	3%		
SP1 Fanaye	1,292	1%	-	-		
Fatima Bintou Diallo	-	-	-	-	15	53%
Thiaytou					1.386	19%
La Paysanne					6	17%
Abdoul Aziz Sy					296	33%
Teranga Entreprise					210	55%
Khar Yalla Gueye					69	12%
Dramécounda					125	5%
Refer Vallée					13	100%
Péllital	*Added in 2014*				705	10%
Al Thiaka					251	56%
Bookk Jom					15	0%
Malal Yoro Gueye					40	0%
Rasoulna					36	0%
Hounaré					110	2%
Orkadiéré					18	100%
PIDAM					64	0%
Subtotal Irrigated Rice	3.314	17%	2.048	8%	3.359	22%
Rainfed Rice						
Assolucer	898	87%	1048	79%	1909	78%
Caritas Kolda	1400	63%	2515	48%	1549	74%
Caritas Ziguinchor	1009	58%	1163	53%	1816	45%
COOPAD	912	70%	1235	70%	2279	72%
Fabo Dental	892	54%	1208	52%	1706	55%
Kissal Patim	599	59%	982	57%	1286	57%
Symbiose	1491	12%	1618	12%	2231	14%
Keur Samba Guève	*Added in 2013*		154	9%	308	13%
AVSF			673	85%	1098	90%
Reprosener (Hors Réseaux)			44	27%	87	32%
Nioro Alassane Tall					219	2%
Keur Saloum Diané					388	65%
FODDE	*Added in 2014*				591	74%
CASADES					479	99%
ASED					447	36%
Subtotal Rainfed Rice	7,201	54%	10,640	52%	16,393	58%
Maize						
FEPROMAS	881	12%	2003	7%	2087	8%
SEDAB	1012	0%	2237	2%	2300	5%
Caritas Kolda			546	35%	604	19%
Fabo Dental			451	5%	1275	16%
Keur Samba Guève	*Added in 2013*		107	1%	242	1%
Kissal Patim			109	0%	220	0%
REPROSEM			153	20%	109	70%
Keur Saloum Diané					326	10%
Diankacounda					95	11%
ASED	*Added in 2014*				101	0%
FODDE					203	14%
Nioro Alassane Tall					316	17%
Subtotal Maize	1.893	6%	5.606	8%	7.878	10%
Millet						
Gainth Kaves	102	7%	150	5%	240	22%
Mabo	110	6%	299	10%	333	12%
Paosskoto	187	8%	199	8%	228	7%
Thiaré	629	11%	1128	36%	1029	34%
Wack Ngouna	410	22%	532	12%	276	11%
Birkelane	137	9%	220	13%	338	16%
KAHI	114	15%	-	-	211	18%
Subtotal Millet	1,689	13%	2,528	22%	2,655	22%

Rainfall Tracking

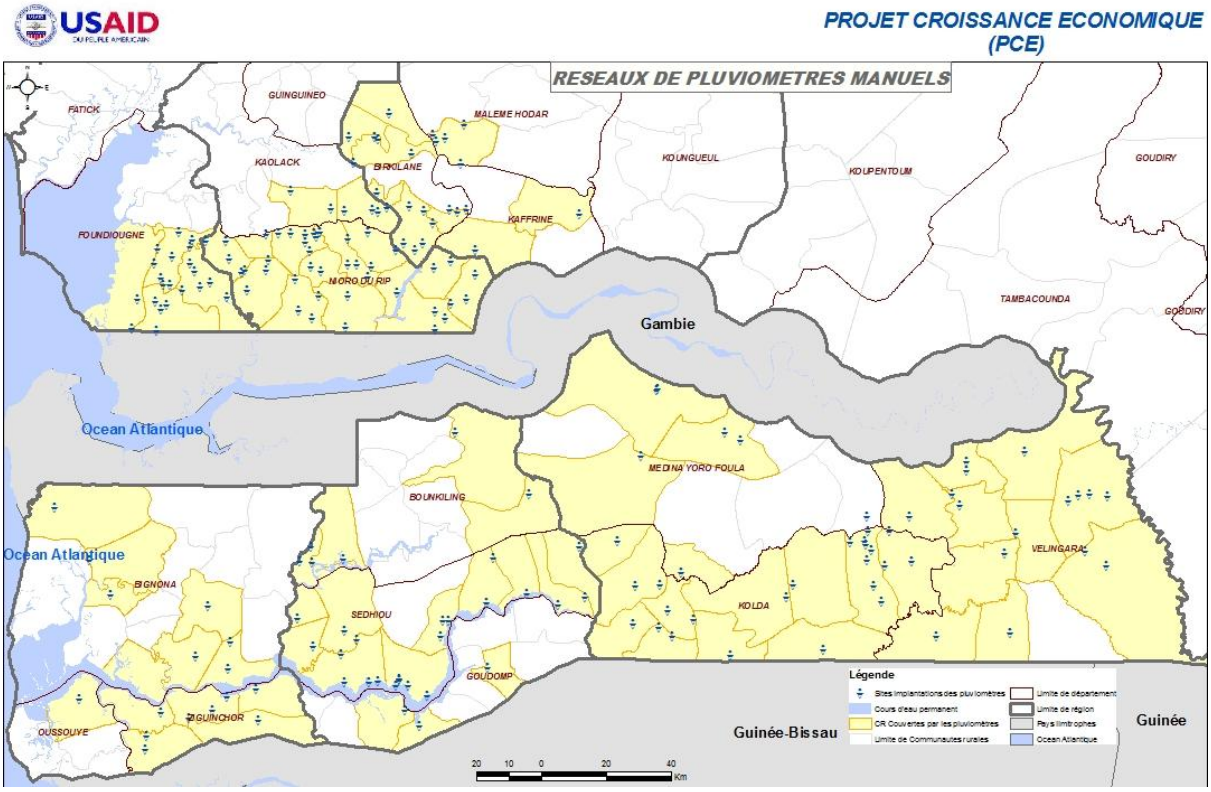
The rainfall tracking system put in place during the 2014 rainy season derives data from a network of 217 manual rain gauges installed throughout the country in different partner intervention zones for all rainfed value chains (upland rice, maize, and millet).

The process of collecting and quickly transmitting rainfall data has been strengthened by the monitoring framework PCE provided to partners at the beginning of the rainy season, in addition to trainings on installation, maintenance, interpretation of gauge readings, and analysis of rainfall data. A User's Guide for rain gauges and a standardized rainfall data collection sheet was also developed and provided to data managers.

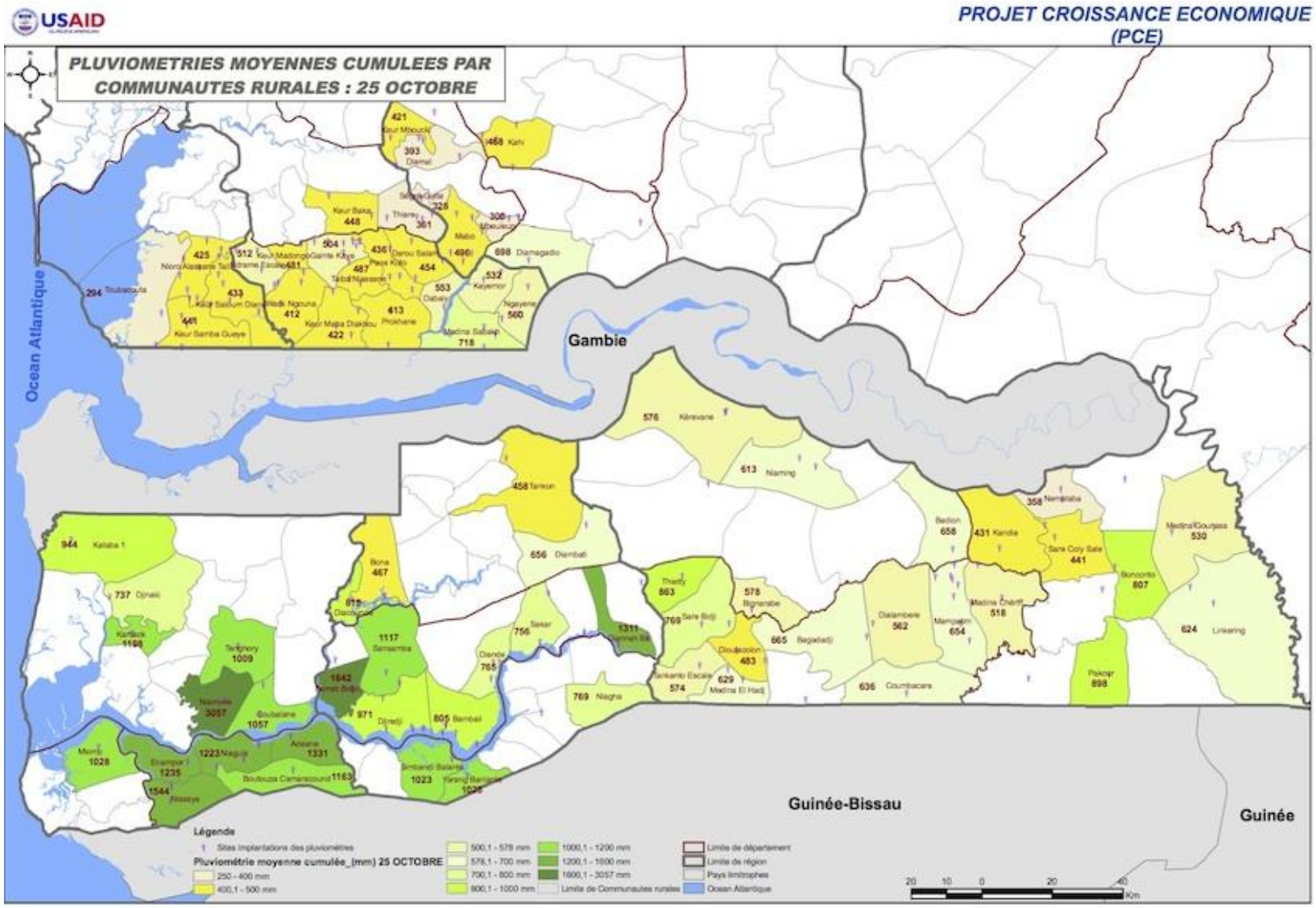
Each rain gauge has an assigned field manager who reads the devices and sends daily rainfall data to the PCE M&E team via SMS. With this data, PCE produces weekly rainfall status update reports and analyses (including maps and illustrative graphics) and distributes them to partners and relevant authorities to inform decision making.

This system has significantly improved the availability and reliability of rainfall data and has enabled farmers to better determine appropriate timing for agricultural activities such as planting, tillage, weeding, fertilizer application and crop disease treatment. Furthermore, the availability of rainfall data for project intervention zones enables PCE technical staff to better understand crop performance dynamics and to explain these to partners in capacity building activities.

Map 8: Location of rainfall tracking sites in PCE intervention zones



Map 9: Rural community rainfall distribution as per rainfall tracking sites – Rain season 2014



Value Chains – Perspectives on Scale and Adoption

A well-anchored field presence across the FTF zone: Since the launch of Feed the Future, USAID/PCE has been able to progressively bring Value Chain support activities to scale, both in terms of the number of small farmers reached and achieving a wide geographic coverage of the targeted zones. This was the work of consolidation networks that were contracted and reinforced by the project to bring productivity and income generating technologies to their constituencies. The number of active partner networks has grown to 69 in FY14, and will reach more than 50,000 farmers of which more than 34,000 are expected to adopt one or more of several technologies. The demonstration site maps show clearly that networks provide more than 60 "anchors" throughout the FTF zone, in total more than 381 trained agents and 1,393[9] lead farmers, and should be considered an asset on which to build future scale-up. As the project prepares to closeout in FY15 the following observations can be made relative to this approach:

Leveraging human resources and skills at the community level: The approach has proven cost-effective in that it leverages the project's small team of regional project managers and reduces outreach costs by subcontracting to organizations with a pre-existing residence and membership base in the implementation zone.

Emergence of strong farmer-owned networks: Farmer owned organizations and NGOs have consistently demonstrated a superior capacity and motivation to conduct training and sensitization activities. They will mobilize locally based resources and in several cases they will take it upon themselves to bring in local government extension to complement their teams. Farmer organizations such as FEPROMAS, Kissal Patim, Fabo Dental and several farmer associations in the SRV exemplify the project's more successful outreach structures. Once reinforced, these organizations become powerful community-level consolidators and will in turn link with buyers, service and input providers, and financial institutions so their members are able to benefit on a sustainable basis. However, to be efficient these farmer-led organizations need to remain close to their membership base. This is why in FY14 the project took the strategic decision to partner directly with local GIEs in the SRV rather than with the regional Cooperatives of Dagana, Podor and Matam who do not yet have the requisite level of field presence.

Redefine the mandate of firm-owned and NGO sponsored networks: Networks led by private firms[10]rapidly identify lead farmers and promising groups, but will rather focus on coordinating activities that are directly relevant to service delivery and contract fulfillment, with beneficiary trainings limited to the immediate client base. At the other end of the spectrum, NGOs with a wide humanitarian scope will indeed reach the poorer strata of the rural population, but will often move on once basic self-sufficiency skills are acquired. Future programs must factor in these structural characteristics: orient and capacitate its NGO partners to train self-help groups so they cross the "business threshold" and evolve into autonomous service providers. Private firms will then be encouraged to build promising community level links with these emerging farmer groups. It is important to note that past experience validates this scenario: small farmer groups formerly managed by SODEFITEX created FEPROMAS, and Kissal Patim was initially a self-help group sponsored by an Austrian humanitarian NGO. In FY14, the Diakacounda maize farmer group split from the SEDAB network and entered a cost share agreement with USAID/PCE.

Farmer networks are sustainable channels for technology dissemination: Successful networks have demonstrated the wherewithal to follow on the introduction of successful technical packages. FEPROMAS now coordinates input procurement and annual loans to its members (presently numbering 2,087), negotiates and distributes rain index insurance, and coordinates harvests.

[9]See Value Chain Extension structure FY14 table in section 2.7

[10]Grain and seedbuyers, input and equipment dealers, banks and otherfinancial institutions such as leasing and insurancecompanies.

SRV groups organize quality control points to manage procurement contracts with mills; millet groups manage production programs on the basis of contracts with industrial buyer; and rain fed rice groups have structured internal certified seed procurement contracts with lead farmers and have joined the REPROSENER seed association to sell surpluses to seed dealers. This market driven process can be leveraged in the future to connect communities with downstream buyers, but equally to ensure community level distribution of inputs and services. The latter magnifies the importance of layering sustainable networks that have emerged through value chain initiatives with CBSPs developed by the USAID/Yaajeende program.

Capacity building will be key to support rapid expansion: Successful groups like FEPROMAS have expanded rapidly. A rain fed rice group like Fabo Dental Lislam spun off its program in the Kindia zone to the ASED organization because it was stretching its capacity. It will be critical to build into future programming a strong organizational capacity building function to reinforce the service providing skills, orient governance and tighten financial management of these networks. In this respect the project has successfully piloted USAID's OCAT framework as a tool to structure organizational reinforcement efforts. This should be pursued as organizations expand and mature. Implementation teams should also be open to network splits and restructuring to remain firmly anchored at the community level and better meet local needs.

ICTs foster data driven farmer-to-farmer learning: The introduction of database and GIS skills as a prerequisite to program implementation brings a more systematic dimension to implementation. Planning meetings and debriefings have served to solidify networks' governance and program management, and have enhanced farmer-to-farmer experience sharing on good practices. At these meetings, farmers have noted through data analysis and empirical observation that yield profiles correlate to the application of new technologies. These workshops have also emerged as an invaluable space in which farmers, building on data and debrief presentations, work together to perfect strategies for improving yields according to location-specific contexts.

Strong indirect adoption requires a data capture methodology: Beyond the adoption figures collected by USAID/PCE supported network, there is evidence of strong adoption of technology packages promoted by the Value Chain team. There has been an increase in demand for quality seed (fully certified or not) of the varieties promoted by the project (NERICA rice , Aromatic rice, OPV maize) as the total production and marketed volumes far exceed the demand of networks. This is particularly evident in the case of rainfed rice where a more than half of seed produced by community multipliers is kept for resale to neighboring farmers. Further, other projects are beginning to promote the technology and procuring seed for public distribution. Limiting project monitoring to direct adopters bears the risk of being caught off-guard by situations of oversupply rather than monitoring and leveraging this growing surplus through value addition and market development initiatives. The current data collection approach should be adapted to capacitate networks to identify and monitor indirect adoption in their catchment zones.

Adoption does not mean equitable and sustainable access: Indirect adoption ratios for technology packages introduced in remote areas of the Casamance and the Middle-Upper SRV will be constrained by poor accessibility and rudimentary distribution channels. For example, the high quality certified seed introduced throughout these zones will invariably degenerate if no attention is placed on developing a sustainable mechanism that ensures its periodic regeneration. This can be achieved by promoting the linkage of small farmers to the commercial certified seed system. It will also depend on the development of community level retailing networks such as the CBSPs promoted by USAID/Yaajeende. In both cases, USAID/PCE's partner networks have developed the capacity to play a lead role in this integration process.

Grassroots mechanization technology access: Based on recent observations with technology adoption, future implementation models need to capitalize on newly created demand for farming equipment (seeders, rippers, etc) and intensify the training of local craftsmen to produce this equipment locally. This could not only serve to diversify local incomes, but would also support

USAID/PCE-strengthened value chains, further the adoption of newly introduced technologies, and decrease the cost of equipment for farmers.

Linkage with local Government institutions and services: The development of the Network approach was in part a response to the limited capacity demonstrated by initial collaboration efforts with existing extension services, which at the time, justified a bottom-up approach. After three years, networks have the capacity to engage with national extension services and build productive collaboration platforms. Future programs should link networks with de-concentrated services such as the DRDR and regional governance levels, involve authorities in program planning, implementation and reporting.

A leadership role for farmer organizations: As strong as an organization like FEPROMAS may be, it still felt the need to link with ASPRODEB to strengthen its advocacy actions. The inclusion of rain fed rice as part of the scope of inter-professional body CIRIZ has given visibility to the Casamance networks who were not visible on the national scene at a time where Government is launching PSE and PRACAS which is of direct interest to them. In FY14 USAID/PCE has involved ASPRODEB to perform an update of its socio-economic profiles in its targeted value chains, and in doing so capitalize on existing networks to collect data. From an impact perspective, prioritizing the facilitation of this integration strengthens the farmers in their institutional relationship with the government institutions tasked to provide a service (such as ANCAR, DRDR and DISEM). Experience has shown that this is more effective than having the project try to induce institutional change through classic capacity building of civil servants. This will strengthen the advocacy capacity of ASPRODEB and provide farmers with strong leverage at the national level.

2.2 Rural Infrastructure & Equipment

USAID/PCE promotes the adoption of new technologies, acquisition of farming, post harvest and processing equipment as well as access to storage and other infrastructure. Farmer access such technologies through a variety of arrangements: in-kind grants by the project; long term credit; long term leasing contracts; short term leases of public infrastructure. During FY14, project activities focused on ensuring the sustainability of adopted systems as well as ensuring farmers are in a position to replicate and expand successful technologies.

Equipment acquisitions: In addition with the work initiated in the SFZ, during the year the project supported Locafrique in promoting the leasing mechanism in the Senegal River Valley. Locafrique and USAID PCE collaborated in the identification of potential candidates for equipment loans in the area. This has led to SAED and Locafrique signing an agreement to promote investments in tractor, harvesting, milling units and storage infrastructure for a potential investment pool of up to 7 billion CFA ($14 million). By the end of FY14, acquisitions were contracted for a total of $3.3 million, which will significantly increase the number of available tractors, combine harvesters and graders (for irrigated land expansion and maintenance).

- Acquisition of equipment under leasing arrangements during the first quarter included the reception by two SFZ partners of two tractors.
- The acquisition by ten service providers, some of them millers, of a total of 5 tractors with implements, 9 combine harvesters and 4 graders (see detailed table in the Access to Finance section) for a total value of $3.3 million;
- The acquisition of a new rice mill of a 5,000 ton annual capacity by Mbodj & frères is also in the approval process at Locafrique.

Storage: During FY14, the project supported its value chain partners in improving storage conditions and in renting storage space where available:

- 3800 recycled plastic pallets were granted to irrigated rice farmer unions, FEPROMAS and millet producers to improve the storage for their grains upon harvest. Associated to this grant are 1 ton scales and basic quality control equipment such as humidity testers. This equipment is part of project grants supporting the implementation of quality control procedures. The performance of the pallets is mitigated at best: the heat conditions during the dry hot season in both the SRV and the Saloum as well as the height at which paddy is stored in certain warehouses exceeded the pallets' resistance.
- USAID/PCE helped FEPROMAS broker an agreement with CSA to access a 1,000 ton facility in Nioro. Unfortunately the storage facility leased by FEPROMAS proved not to be accessible because it was already occupied by a seed dealer. Local authorities provided alternative storage of a lesser quality in various communities which were used by FEPROMAS to consolidate and market 400 MT of maize to Avisen. For the following harvest season, special attention will need to be placed in securing a reliable storage network.
- In perspective of the 2014 harvest, FEPROMAS and Millet networks identified a series of consolidation points where minor repairs could free-up an additional 500T in capacity spread throughout the zone. The project has commissioned an architect to estimate renovation costs.

Seed processing: The Richard Toll center rehabilitation and the construction of the Kolda center are completed.

- In the case of **Richard Toll** this has involved the renovation and addition of buildings to house a new seed-cleaning unit with an annual processing capacity of 6,000 tons. This project is a grant

to the MAER which is transferred to private management by COOSEN, a cooperative which groups 36 seed production firms who represent the greater part of the industry in the SRV.

- In the case of Kolda, USAID/PCE's contribution to the PPP agreement signed with SEDAB consisted in the provision of architect and construction supervision services and the acquisition of a seed-cleaning unit. Initially planned at an annual capacity of 3,000 T, SEDAB complemented the necessary funds to upgrade to a higher capacity. The civil works were funded by SEDAB and included the main plant building as well as an adjoining warehouse.

Rural Infrastructure—Perspectives on Scale and Adoption

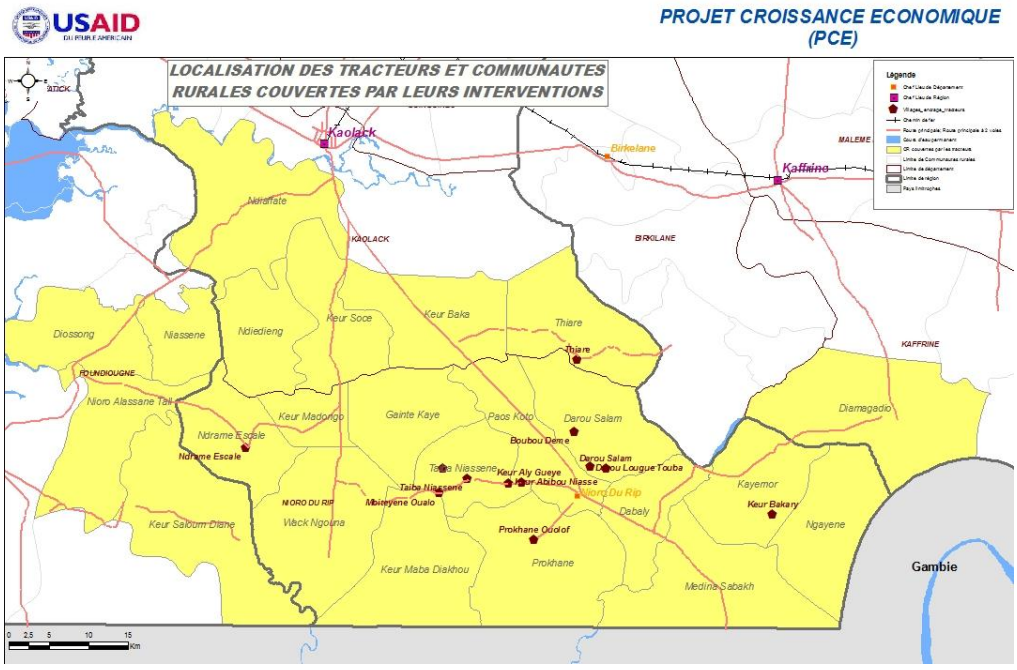
FY14 activities demonstrate the importance of adapted financing mechanisms in enabling the acquisition of equipment. In the Saloum, the map on the following page shows that the tractor acquisitions supported by USAID/PCE have improved the coverage in available tractor services. It is important to note that the equipment acquisitions in the SRV were made while important subsidies had been previously announced by Government, yet enterprises decided not to wait and go ahead with these investments. Important hurdles remain nevertheless:

- Value added tax rules need to be adapted to the leasing framework and full exoneration status is still conditional to post acquisition verifications. The NASAN private sector group has flagged this as a priority issue.
- The financing of grain warehousing still remains difficult as loan terms are too short to allow investors to cover annual payments. A form of cost share mechanism needs to be envisioned for farmer cooperatives. For the time being, farmer groups rely on grants and makeshift arrangements.
- Business coaching to service providers is necessary to ensure they manage their equipment to full capacity. Also, as the following table demonstrates, equipment service providers are vulnerable to the impact of erratic rainfall: in effect, for the 2014 rain season most Saloum tractor owners were not able to complete their seasonal program in an orderly way and the late rainfalls shortened the land preparation window.

February 2014 - FEPROMAS maize bags stored in a house construction site. As production increases, the lack of storage in the production areas is becoming a pressing issue. Cost-efficient consolidation solutions need to be developed and financed by the private sector.

Table 15. Mechanization Services by Long-term Financing Beneficiaries							
Owner	Affiliation	Finance Institution	Value of Equipment	Hectares			
				RS12	RS13	RS14	Total
Amath Diakhaté Niasse	FEPROMAS	CNCAS	17,820,000	193	238	0	**431**
Nimna Diayté	FEPROMAS	CNCAS	17,820,000	440	164	82	**686**
El hadj Ousmane CISSE	FEPROMAS	CNCAS	16,594,400	84	128	15	**227**
Hamidou DIOP	FEPROMAS	CNCAS	19,160,000	0	97	101	**198**
El Hadji Omar DRAME	FEPROMAS	Locafrique	16,594,400	256	220	117	**593**
Cheikhna BARRY	FEPROMAS	Locafrique	16,594,400	394	162	105	**661**
Mame Amath NIASSE	FEPROMAS	Locafrique	16,594,400	221	275	53	**549**
Rame SALL	FEPROMAS	Locafrique	16,594,400	19	103	92	**214**
Bara NDIAYE	FEPROMAS	Locafrique	16,594,400	120	100	75	**295**
Mouhamadou Sadikh	FEPROMAS	Locafrique	16,594,400	46	-	78	**124**
Papa Mabeye DIOUF	FEPROMAS	Locafrique	16,594,400	458	255	120	**833**
Ousmane Seny THIAM	FEPROMAS	Locafrique	16,594,400	206	254	112	**572**
El hadji Mouhamed DIOP	Privé	Locafrique	17,250,820	-	-	-	
GIE Al Mbath Seck	Privé	Locafrique	18,500,000	-	-	-	
MAFATIHOU BISRI	Privé	Locafrique	37,500,000	-	-	-	
GIE FILS BIRAHIM FALL	Privé	Locafrique	38,500,000	-	-	-	
Cheikh Diallo	Naxadi Derete	Locafrique	30,000,000	-	-	-	
NDIALENE	Privé	Locafrique	38,000,000	-	-	-	
GIE Mame Oumar Niang	Privé	Locafrique	45,700,000	-	-	-	
Subtotal Tractors			**429,600,420**	**2,437**	**1,996**	**950**	**5,383**
Oumar Mbodj	GIE MBODJ ET	Locafrique	70,000,000	-	-	363	363
MAFATIHOU BISRI	Privé	Locafrique	74,000,000	-	-	0	0
GIE BOROM TOUBA	Privé	Locafrique	96,000,000	-	-	0	0
GIE FILS BIRAHIM FALL	Privé	Locafrique	74,000,000	-	-	0	0
Cheikh DIALLO (1)	GIE Naxadideret	Locafrique	58,000,000	600	600	300	1500
Cheikh DIALLO (2)	GIE Naxadideret	Locafrique	96,000,000	-	-	0	0
Cheikh DIALLO (3)	GIE Naxadideret	Locafrique	96,000,000	-	-	0	0
Bouna WADE	ETS BOUNA	Locafrique	89,000,000	-	-	0	0
NDIALENE	Privé	Locafrique	70,000,000	-	-	0	0
Subtotal Combine			**723,000,000**	**600**	**600**	**663**	**1863**
TOTALS			**1,152,600,420**	**3,037**	**2,596**	**1,613**	**7,246**

Map 10: Position of Saloum tractors



2.3 Seed Sector Development

The availability of sufficient volumes of certified quality seeds is essential to support the growth of the value chains currently supported by PCE (rice, maize, and millet). This is the basis of PCE's work to bolster national capacity for production, control, processing, packaging, and distribution of certified seeds. USAID/PCE's activities have the objective of reinforcing the integration of the institutional and private actors active in the seed sector in order to improve the quality, continuity and diversity of the supply in certified seeds to SRV and SFZ farmers.

To this end the FY14 program is structured along the following core intervention approaches: reinforcement of the seed certification framework overseen by DISEM; support to the coordination of firms and farmers involved in cereal seed multiplication and the structuring of requirements for foundation seeds; increase of seed processing capacity through cost share investments in private sector-managed processing facilities.

Seed Certification Framework/ DISEM

- In FY14, the supplementary electronic equipment provided to DISEM laboratories (in Kaolack and Kolda) has been installed, and the labs are now completed and fully operational.
- Trainings were provided to lab analysts in the use of newly acquired germination chambers and other analytical equipment.
- The project team worked with DISEM to develop technical guides and training material destined to certified seed partners.

Mr. Oumar Mballo, head of the new Kolda seed laboratory, at work. Mr. Mballo has been in post for more than 20 years and is approaching retirement. The MAER is considering privatizing this service but needs to develop clear operational guidelines to control future licensees.

Seed Multiplication Networks

- Through PCE support in FY14, the major seed multiplication networks (UNIS-Nord, REPROSEM, REPROSENER and RPSCL/BA) all have three-year production strategies that frame their annual work plans.
- USAID/PCE supported the institutional strengthening of GIE certified inspectors from the SRV through the co-production of the geo-referenced UNIS database and maps of SRV rice seed production sites, which have been published and presented to the MAER.

- The following table is a detailed profile of seed multiplication data for all value chains supported by USAID/PCE for FY14. Values presented in the table cover: the harvest and treatment of Rain season 2013, and, for irrigated rice, Dry Season 2014; we have added known planted surface data and production estimates for rain season 2014 to provide the reader with indications of future growth.
- As the table shows, cereal seed production relied on a base of 952 farmers, which has grown to 1,451 for the current 2014-15 rain season. In FY14, 153 new farmers from 5 new networks joined the rainfed rice seed production program for RS2014, for an estimated additional output of 210 T. As noted in the table, millet partner groups consolidated and reported their yields under RPSCL in RS2013. By RS2014, they opted to move forward as independent farmer networks, due to increased management capacity and membership. Projected production figures for the 2014 rain season have been minimized for the SFZ due to the late start of rains this year.

Table 16. FY14 Seed Multiplication by Network - All Value Chains

		Seed Producers RS2013+CS2014							Seed Producers RS2014		
Partner Networks		Total small-holders under contract (#)	Total Qualified for Certification (T)				Fully Certified 2013-14 (T)		Total small-holders under contract (#)	Est. Area (Ha)	Est. Prod. (T)
			Area (ha)	Total seed produced (T)	B	R1	R2				
Irrigated Rice	UNIS Rain season	386	709	4,254	210	3,558	486	2,355	487	567	2268
	Subtotal Irrigated Rice	**386**	**709**	**4,254**	**210**	**3,558**	**486**	**2,355**	**487**	**567**	**2,268**
Rainfed Rice	Reprosener	121	59	106	2.26	38	65	31	87	66	99
	Assolucer	47	25	67	0	11	57	2	76	80	120
	AVSF	21	8	15	0	2	13	N/A	40	24	36
	Caritas Kolda	39	30	42	0	0	42	N/A	67	37	56
	Caritas Ziguinchor	38	31	66	0	5	61	N/A	69	51	77
	Coopad	45	26	31	0	2	29	6	52	38	57
	Fabo Dental	51	25	70	0	0	70	12	88	85	128
	Kissal Patim	26	15	33	0	0	33	N/A	41	22	33
	Keur Samba	20	10	14	0	0	14	N/A	61	30	45
	Symbiose	33	22	48	0	0	48	N/A	89	55	83
	Ased	*Added for RS2014*							27	15	23
	Fodde								30	28	42
	Casades								35	35	53
	Keur Saloum								31	29	44
	Nioro Alasane								30	32	48
	Subtotal Rainfed Rice	**441**	**249.86**	**492**	**2.26**	**58**	**431**	**51**	**823**	**627**	**940.5**
Maize	REPROSEM	110	612	1655	144	1511	0	632	108	240	480
	Subtotal Maize	**110**	**612**	**1655**	**144**	**1511**	**0**	**632**	**108**	**240**	**480**
Millet	RPSCL	25	26.8	34	34	0	0	27.2	0	0	0
	UGPCL Thiaré	*Reported as RPSCL for 2013 but became independent networks with additional members for 2014*							3	18	18
	Wack Ngouna								5	5	5
	Paoskoto								10	10	10
	Birkelane								14	12	12
	Mabo								1	1	1
	Subtotal Millet	**25**	**26.8**	**34**	**34**	**0**	**0**	**27**	**33**	**46**	**46**
Totals		**962**	**1,598**	**6,435**	**390**	**5,127**	**917**	**3,065**	**1,451**	**1,480**	**3,735**

Seed Processing Facilities

In FY14, USAID/PCE completed its seed processing investments in the seed processing facilities of Richard toll and Kolda. This boosts the country's annual seed processing capacity by a volume of 11,000 tons: 6,000 tons in Richard Toll and 5,000 tons in Kolda. Both lines are currently in operation and due to be officially inaugurated when the schedule of the GoS authorities and USAID are aligned.

The two seed processing facility projects benefited from direct grants from USAID/PCE:

- The Richard Toll grant covered the renovation of the existing facilities and the addition of additional buildings to house the new seed processing line and the administrative offices. Project support also includes an electrical generator and engineering services for the oversight of the construction. The grant was issued to the government of Senegal who transferred the facilities to COOSEN, a cooperative grouping 36 seed producers from the SRV under a concession agreement (see PPP below).
- The Kolda grant was attributed to private firm SEDAB under a cost share agreement where SEDAB covered the full construction cost of the facilities' building (land, production, storage and offices) and USAID/PCE provided the engineering services, construction supervision and the acquisition of the seed processing unit. SEDAB contributed an additional amount to bring the initial equipment's capacity to 5,000 tons.

The signature of the PPP agreement that governs the Richard Toll facility was an arduous process that spanned almost the full fiscal year, as getting the full authorization of the Direction Centrale des Marchés Publiques proved difficult. The main hurdle was to demonstrate that the decision to sole-source the concession agreement and attribute it to COOSEN did not conflict with the country's procurement rules. Finally, the justification provided by the Ministry was deemed acceptable to DCMP, mainly the fact that the Cooperative grouped more than 90% of the zone's seed producers and that its statutes could accept additional members to maintain this proportion. The Minister of Agriculture and Rural Equipment Pape Abdoulaye Seck signed the concession agreement officially in August 2014.

According to the MAER, this PPP agreement is an innovation that paves the way for further transfer of Government investments under the management of value chain stakeholders – in particular given the objective of both PRACAS and the cereal corridor component of PSE to expand seed processing and storage capacity across the country.

The Kolda seed cleaning unit was completed in time to process seed for the 2014 rain season. The above pictures show the seed cleaning unit and the finished product storage zone where duly tagged certified seed bags await pick-up. The unit provides Casamance farmers with a capacity to produce and process 5,000 tons of rice, maize and millet seeds. Prior to this investment they needed to travel to Tambacounda and even Diourbel.

Seed Sector Development - Perspectives on Scale and Adoption

USAID support through the PCE project has provided Senegal with essential infrastructure for the production of breeder and foundation seeds, and for the treatment and analysis of seeds in three major hubs of core grain production for the country (St. Louis for irrigated rice, Kaolack for millet and maize, and Kolda for rainfed rice and maize).

These efforts directly resulted in the increased availability of certified seeds on the market, but an additional, indirect result is the notably heightened awareness and appreciation farmers have for high quality seed, whether or not it is officially certified.

This demonstrates that the seed certification framework has not only enhanced the standards and certification system for seeds on the formal market, but it has also raised the standards and quality of seeds exchanged *informally*. This proliferation of high quality seed represents a significant boost for the food security profile in PCE intervention zones that merits further impact assessment.

The system of certified seed production is further bolstered by the newly established network of certified inspectors, which provides an essential supplement to the thinly staffed roster of MAER field agents covering production zones.

Producer networks now develop and use three-year business plans, which enable them to contract with research facilities for purchasing multiplication seeds, despite continuing difficulties in meeting overall demand. Prospects are also now emerging for the decisive involvement of the private sector in the area of infrastructure management.

After more than two years of negotiations and going through administrative hurdles, COOSEN, the cooperative created by SRV seed multiplication firms, signed a landmark PPP concession agreement with the MAER to operate the Richard Toll Seed Processing Center. The agreement is the result of open discussions facilitated by Senior Value Chain Manager ElHadj Abdou Gueye (right), which led to compromises by both parties and a clear understanding of the public service nature of the agreement. In this process the leadership of Ousseynou Ndiaye, President of UNIS-Nord seed association and a Cochran Fellow, was a determining success factor.

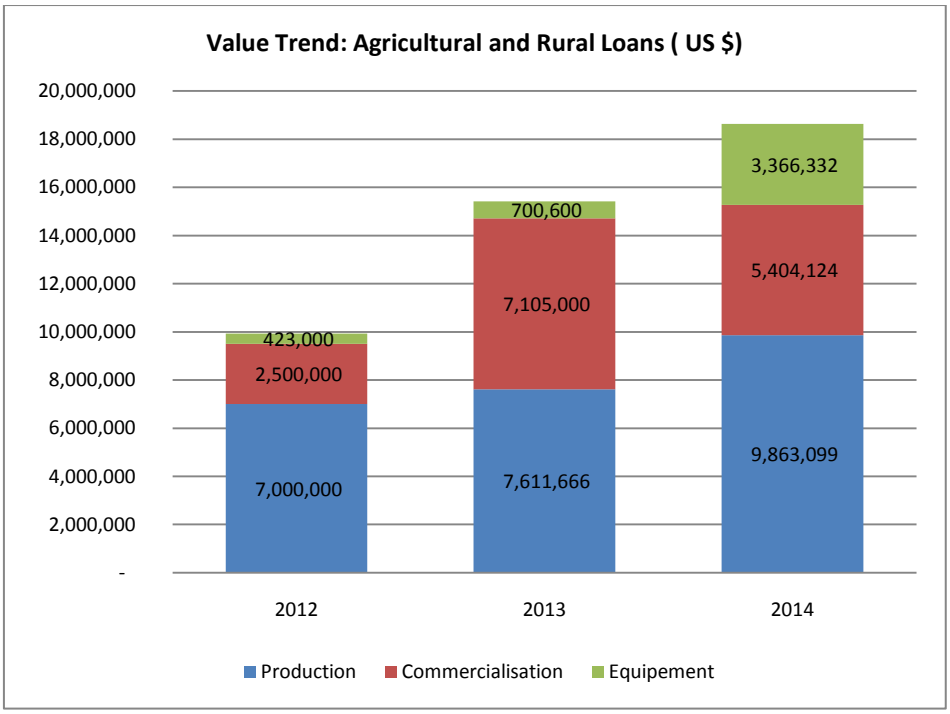
2.4 Access to Finance

FY14 is marked by the in-depth involvement of key actors in the consolidation and adoption of integrated financial mechanisms implemented in all priority value chains. The successful transfer of ownership of these models suggests an optimistic outlook for the continuation of activities and the sustainability of positive results. It is also the direct result of a long collaborative process whereby a multitude of actors received USAID/PCE support through awareness raising, outreach, trainings, financial intermediation, and financial and marketing coaching activities. Tangible quantitative and qualitative benefits have emerged for all value chain stakeholders through this process, which has in turn motivated actors take ownership.

In the SRV, the adoption and consolidation of the CNCAS/Rice millers/Producers model has resulted in a nearly 40% increase in loans injected by CNCAS for production operations. Unprecedented financing has been injected into mechanization of rice production through lease finance mechanisms. Agriculture insurance activities have extended to cover nearly 10,000 ha in two seasons. Finally, foreign direct investment has become a reality with the recent establishment of the first joint-venture experience in the local rice value chain.

In the central and southern zones, rain index insurance has been integrated into financing mechanisms for maize and millet production. In fact, farmers' organizations have begun to near-systematically pre-finance the payment of insurance premiums on behalf of members when financial institutions experience delays in processing loans. This conveys that networks acknowledge the importance of rain-index insurance coverage, and also illustrates a trend toward financial autonomy and sustainability that has been made possible through PCE activities.

The graph below illustrates the progression of the value of agricultural and rural loans (in CFA). In 2014 we note a 20% increase in overall finance injected in different value chains for production, marketing, mechanization and processing.



Value Chain Financing

Irrigated rice value chain: Since the start of the project, USAID/PCE has not ceased working to eliminate the main barriers faced by local farmers to market their rice. In 2011, a pilot was launched in collaboration with Vital agro-industries, CNCAS and water user associations to integrate financial models that would improve CNCAS reimbursement rates while laying the foundation for a formal and solvent rice market. Consolidated in 2012 through a series of meetings and workshops with key stakeholders, these models have enabled the sale of nearly 20,000 T and mobilized more than US $11 million. To ensure the sustainability of these models, monitoring activities were carried out in 2014 and USAID/PCE facilitated discussions with CNCAS to establish marketing credit lines for rice millers as a sine qua none condition for rapid settlement of contracts. 2014 was marked by the full adoption of the integrated CNCAS/water user associations/rice millers model. Formalizing business relations between GIE producers and millers through signing contracts has now become a systematic practice. The model has not only been extended to new participants, but certain rice mills, which were on the verge of going out of business (Agro-Industrie du Nord, Débit-Tiguet, Kobilo), have now resumed operations due to their recent inclusion. Additionally, new mills (GIE Mame Oumar Niang) have been created and new projects are emerging around those that were already involved (Mbodji et Frères and CNT agro-industrie SA, among others). Consequently, the bank loans mobilized for the production and marketing of irrigated rice in FY14 increased nearly 42% compared with FY13, with a total value of US $14,161,591.This figure came mainly from CNCAS, who has remained the leader in production financing, though BNDE and PAMECAS were also notable actors in FY14.The table on the following page provides detail on financing amounts for all value chain networks for FY14.

Maize sector: As in recent years, difficulties in ensuring timely credit reimbursement continued, which has had negative impacts on production loans this year. These difficulties have prompted producer networks to engage in a process of negotiations, appropriation, and strengthening of their relationships with financial institutions. These exchanges have yielded positive results, including an amendment to the FEPROMAS/PAMECAS protocol for covering some defaulted payments, and the established support of this MFI in the area of commercialization financing. This year, instead of leading the process, USAID/PCE supported actors in the research and solution of the main barriers encountered in credit repayment. In fact, the project mainly participated as an advisory resource in meetings convened by FEPROMAS and financial institutions to improve reimbursement rates, and made significant contributions to the drafting of a protocol amendment for FEPROMAS/PAMECAS. USAID/PCE actively participated in field meetings with producers to track repayments. Finally, the project has invested significant effort in working meetings for improving financing models, particularly in the area of cereal marketing.

Millet networks: USAID/PCE has worked to expand the portfolio of technical and financial partners in the networks, made necessary by the growth and diversification of millet producers' needs. Working sessions on this theme were organized and facilitated by USAID/PCE for representatives from producer and financial institutions. Similarly, field visits were organized to engage small millet mills and incorporate them in commercial partnerships with the networks. Millet producer networks have succeeded in meeting their financing needs, selling their grain stocks, and reimbursing their loans. However, there are more notable developments to report this year, such as the new involvement of CNCAS in millet production with an initial financing of US $31,000 for 3 networks, which included a 2-month, interest-free payment period extension. In addition, the Wack Ngouna farmer network abandoned the supplier credit model since, for the first time, they covered their input costs through securing two bank loans (with CNCAS and CMS). The third item of note for FY14 is the start up of rain index insurance for millet (see subsequent section).

Rainfed rice: It has been noted that the rainfed rice value chain is still struggling to increase financing levels due to high farmer reliance on yields for subsistence (consumption). However, there is a relative increase in the amounts recorded this year due mainly to loans contracted by the FABO DENTAL network.

Seed sector: In 2014, USAID/PCE continued the established financing momentum for seed production (particularly for irrigated rice and maize), namely through facilitating linkages with financial institutions. A primary sequence of activities revolved around organizing meetings to explain the financing opportunities being made available to producers by partner financial institutions. For seeds, particularly for irrigated rice and maize, it has been noted that the only figures reported to date on dedicated financing from financial institutions do not provide an accurate representation of the observed reality. Therefore, efforts are also currently underway to capture the exact amounts of self-financing and repurposed bank financing being invested in seed production.

Integrated crop finance in the Senegal River Valley

Reengineering rural finance in the irrigated rice sector required building trust between farmer organizations, buyers and the financial institution. This required strong leadership and commitment from representatives of all parties involved and an ability to compromise and adjust the model as it grows. Pictured here are rural leaders who were key in pioneering the difficult early stages of this innovative financing mechanism, which is evolving from season to season and is paving the way to full double-cropping in the SRV.
From left to right: Abdou Diop, President of Boundoum Barrage Water User Association, Daba Fall, Procurement Manager of Vital Agro Industries, Ndiawar Diop, President of the Federation of Farmer-Managed Perimeters (FPA),and Seydou Kane, Branch Manager of CNCAS-Ross Bethio.

Table 17. Value Chain Finance (in US $)

	Type of Financing	Region	LOCAFRIQUE	BNDE	CNCAS	UIMEC	PAMECAS	ACEP	CMS	COOPEC	MEC KISSAL	Self-financed	Provider Credit	Total FY14	Total FY13	Reimbursement rates for RS13 (%)
Irrigated Rice			**103,093**	**1,717,113**	**11,811,017**	**13,629**	**619,831**	**0**	**0**	**0**	**0**	**0**	**0**	**14,264,684**	**13,534,188**	**99%**
Unions hydrauliques et privés	Production	Saint-Louis	-	618,557	5,837,230	13,629	305,196	-	-	-	-	-	-	6,774,612	5,787,938	95%
Riziers et consolidateurs	Marketing	Saint-Louis	-	-	5,154,639	-	-	-	-	-	-	-	-	5,154,639	7,000,000	100%
UGMD	Production	Saint-Louis	-	-	-	-	90,856	-	-	-	-	-	-	90,856	119,250	100%
GPF PLAN DIADJI FAKHA	Production	Saint-Louis	-	-	-	-	20,309	-	-	-	-	-	-	20,309	-	N/A
GPF PLAN MBOUNDOUM	Production	Saint-Louis	-	-	-	-	76,495	-	-	-	-	-	-	76,495	-	N/A
SFA BOUNDOUM	Production	Saint-Louis	-	-	-	-	126,975	-	-	-	-	-	-	126,975	-	N/A
CNT	Production	Saint-Louis	-	618,557	286,423	-	-	-	-	-	-	-	-	904,979	360,000	100%
NAXADI DERET	Production	Saint-Louis	-	480,000	367,777	-	-	-	-	-	-	-	-	847,777	142,000	100%
MBODJ ET FRERES	Production	Saint-Louis	**103,093-**	-	-	-	-	-	-	-	-	-	-	-	125,000	N/A
MBODJ ET FRERES	Marketing	Saint-Louis	-	-	41,237	-	-	-	-	-	-	-	-	41,237	-	N/A
TERANGA SA	Marketing	Saint-Louis	-	-	61,856	-	-	-	-	-	-	-	-	61,856	N/A	N/A
PELLITAL SA	Production	Saint-Louis	-	-	61,856	-	-	-	-	-	-	-	-	61,856	N/A	N/A
Rainfed Rice			**0**	**0**	**47,010**	**0**	**0**	**37,113**	**8,536**	**0**	**9,278**	**0**	**0**	**101,937**	**80,330**	**100%**
Keur Samba Gueye	Production	Fatick	-	-	-	-	-	-	4,825	-	-	-	-	4,825	24,742	100%
REPROSENER	Production	Kolda	-	-	-	-	-	-	-	-	-			-	21,000	100%
Kissal Patim	Production	Kolda	-	-	-	-	-	-	-	-	9,278	-	-	9,278	15,000	100%
FABO DENTAL	Production	Kolda	-	-	-	-	-	-	3,711	-	-	-	-	3,711	3,093	100%
FABO DENTAL	Production	Kolda	-	-	-	-	-	37,113	-	-	-	-	-	37,113	3,093	100%
FABO DENTAL	Production	Kolda	-	-	47,010	-	-	-	-	-	-	-	-	47,010	13,402	100%
Maize					**383,590**	**48,619**	**96,330**	**28,041**	**21,650**	**-**	**-**	**-**	**192,955**	**771,184**	**893,058**	**99%**
FEPROMAS	Production	Kaolack	-	-	96,608	15,258	-	-	-	-	-	-	192,955	304,821	475,000	94%
FEPROMAS	Marketing	Kaolack	-	-	144,330	-	-	-	-	-	-	-	-	144,330	105,000	100%
Nioro Alassane Tall	Production	Fatick	-	-	-	15,588	31,423	1,237	-	-	-	-	-	48,247	31,464	100%
Door Waar de Keur Saloum Diané	Production	Fatick	-	-	-	14,680	28,948	-	-	-	-	-	-	43,629	42,392	100%
Keur Samba Gueye	Production	Fatick	-	-	-	-	35,959	-	-	-	-	-	-	35,959	24,742	100%
REPROSEM	Seeds	Kaolack	-	-	-	-	-	-	10,309	-	-	-	-	10,309	5,344	100%
REPROSEM	Seeds	Kolda	-	-	-	-	-	-	5,155	-	-	-	-	5,155	594	100%
SEDAB	Production	Kolda	-	-	103,248	-	-	-	-	-	-	-	-	103,248	147,222	95%
SEDAB	Production	Sédhiou	-	-	14,662	-	-	-	-	-	-	-	-	14,662	20,300	100%
SEDAB	Production	Kolda	-	-		-	-	15,464	-	-	-	-	-	15,464	22,000	100%
FABO DENTAL	Production	Kolda	-	-	24,742	-	-	-	-	-	-	-	-	24,742		
FABO DENTAL	Production	Sédhiou	-	-	-	-	-	11,340	-	-	-	-	-	11,340	19,000	100%
FABO DENTAL	Production	Kolda	-	-	-	-	-	-	6,186	-	-	-	-	6,186		
FABO DENTAL	Production	Kolda	-	-	-	3,093	-	-	-	-	-	-	-	3,093		
Mil			**-**	**-**	**30,928**	**34,298**	**-**	**31,120**	**34,948**	**-**	**-**	**69,684**	**31,533**	**232,510**	**209,090**	**100%**
GPCL de Mabo	Production	Kaffrine	0	0	0	10,309	0	0	0	0	0	16,979	0	27,289	18,190	100%
GPCL de Mabo	Marketing	Kaffrine	0	0	0	0	0	0	2,062	0	0	0	0	2,062		
Saxami de Kahi	Production	Kaffrine	0	0	0	0	0	0	0	0	0	17,868	0	17,868	N/A	N/A
GPC de Gainte Kaye	Production	Kaolack	0	0	0	23,989	0	0	0	0	0	2,311	0	26,300	15,900	100%
Deekal Mbayum Suna de	Production	Kaolack	0	0	0	0	0	0	0	0	0	23,265	0	23,265	17,000	100%
Baybayat	Production	Kaffrine	0	0	10,309	0	0	0	10,309	0	0	9,260	0	29,878	18,000	100%
UGPCL de Thiaré	Production	Kaolack	0	0	10,309	0	0	31,120	0	0	0	0	31,533	72,962	76,000	100%
Wack Ngouna	Production	Kaolack	0	0	10,309	0	0	0	22,577	0	0	0	0	32,887	64,000	100%
TOTAL					**12,272,545**	**96,546**	**716,161**	**96,274**	**65,134**	**0**	**9,278**	**69,684**	**224,488**	**15,370,315**	**14,716,66**	**99.5%**

Crop Insurance

Crop insurance for irrigated rice: USAID/PCE supported CNAAS to carry out an awareness-raising program in the SRV on agricultural insurance. The program included communication activities, business meetings with farmer leadership and the facilitation of an arrangement with CNCAS to include insurance as part of the seasonal loan amount. Agricultural insurance, which in the SRV covers crop loss or damages caused by birds or flooding, has now become a central component of loan applications submitted to financial institutions even though it is not a binding requirement. This is because farmers have come to realize that holding crop insurance coverage makes their applications stronger as it reduces lender risk. As a result, loans totaling US $4,190,689 were provided in RS2013 (covering an area of 6,775 ha) and US $3,628,206 is already assured for the off-season alone (covering an area of 5,866 ha).

The above public billboard signage was deployed in the areas covered by the campaign during January 2014. The CNAAS communication program was initiated in order to promote the adoption of agricultural insurance as a kind of production factor linked to the credit system for conventional inputs. The message conveyed and backed by visual illustration of bird attacks on rice plots was in substance "it's better to be safe than sorry." Various communication tools including flyers and posters were also developed for distribution to 1,500 producers, and for posting in the offices of financial institutions. This was completed with radios programs in local languages to reach the greatest number of producers in grassroots communities.

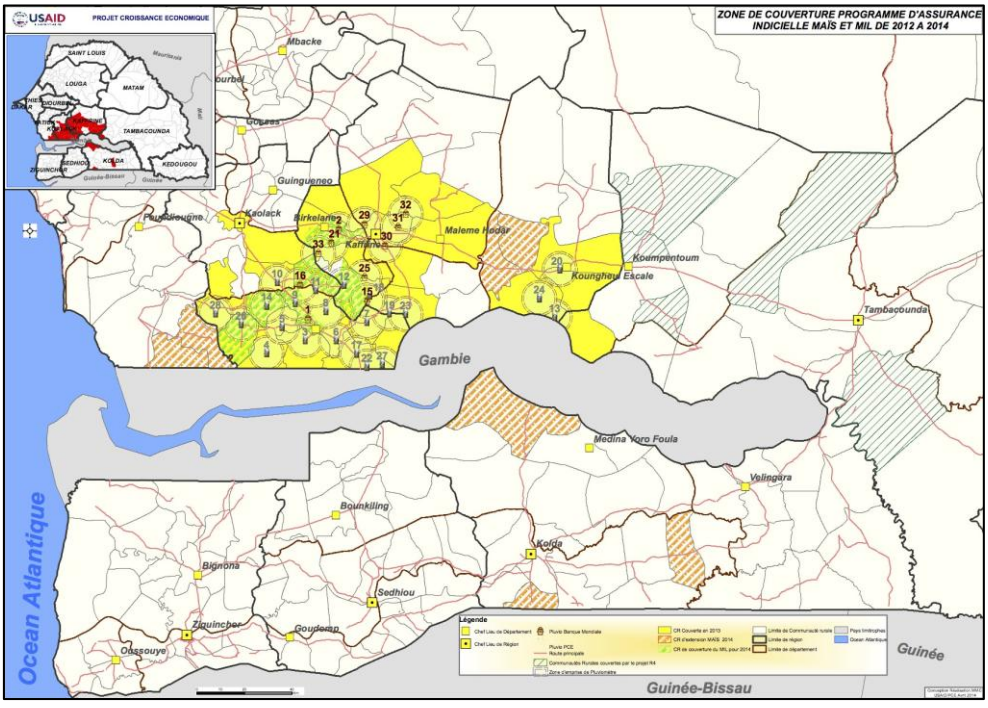
Rain index insurance in the SFZ: For the past two years, USAID/PCE supports CNAAS and Planet Guarantee for the development and introduction of rain index insurance for rainfed maize and millet. In FY14, rain index insurance subscriptions have increased for the maize sector, with 26% more farmers insured, a 37% increase in area covered, and a 38% increase in total amounts insured. FEPROMAS has, like last year, proactively pre-financed the purchases of index insurance premiums to ensure coverage of members when financial institutions were delayed in issuing credit disbursements. The same dynamic has been noted with the five millet networks that, for their first time, have insured 702 producers (with 825 ha covered and US $63,600 in capital insured).

In FY14, USAID/PCE has funded the installation of 19 automatic rain gauges and is supporting Planet Guarantee to define indices for rainfed rice. These investments will reinforce the enabling environments for securing financing, will facilitate expansion to new zones and expand the coverage of the service to new zones and crops in the SFZ.

Table 18. FY14 Crop Insurance Coverage

	Rain Index Maize		Rain Index Millet		SRV Agricultural Insurance		Totals	
	RS2013	RS2014	RS2013	RS2014	RS2013	CSC2014	RS2013	RS2014
# Paying Subscribers (policies)	611	769	0	702	113[11]	117	611	1,471
Area insured (Ha)	864	1,186	0	825	6,775	5,866	864	2,011
Value of Paid Premiums (CFA)	9,672,884	14,287,755	0	3,980,317	67,749,466	58,656,000	9,672,884	18,268,072
Value of Capital Insured (CFA)	77,600,000	107,350,000	0	30,556,700	2,032,484,000	1,759,680,000	77,600,000	137,906,700
Number of Claims Paid	42	Not due	0	Not due	ND	ND	42	ND
Value of Claims Paid	2,881,000	Not due	0	Not due	18,555,409	17,648,315	2,881,000	39,084,724

Map 11: Rain index insurance and rain gauge positioning (yellow and orange areas)
The current R4 rural communities are striped in green.



[11]In the SRV policies are issued to farmer organizations. The exact number of farmers covered is not available but is estimated at 4,000.

Leasing and Equipment Financing

Promotion of leasing in the SRV: In FY14 PCE supported LOCAFRIQUE with the first phase of extending lease financing in the SRV, which has raised US $3,366,331.59 in financing for the purchase of agricultural equipment for 10 promoters. Other applications currently underway with Locafrique show a total value of US $6,023,131.

SFZ equipment loans: In the central zone, USAID/PCE pursued the promotion of leasing in the SFZ and as a result Locafrique financed two additional tractors, one in Kolda and the other in Kaffrine, to lead farmers involved in the rice and maize Value Chain programs.

Loan repayments: USAID/PCE pursued the monitoring of the first group of farmers who acquire equipment under leasing. Some farmers experienced relatively serious difficulties making repayments on financed equipment. Of the 10 tractors (four financed by CNCAS and six by LOCAFRIQUE), four are reportedly behind on making their second payments. It is the same case for the harvesters financed by LOCAFRIQUE, of which only one of four is up to date on payments. After several unsuccessful collection attempts, LOCAFRIQUE will seize and re-lease some of the equipment to other promoters who are considered more reliable. However, it should be noted that LOCAFRIQUE has not allowed these issues to deter them from pursuing their expansion in agriculture.

Table 19. Equipment Leasing – 2014 new loans

Beneficiary	Finance Provider	Zone	Equipment	Value of Equipment (US $)
GIE Al Mbat SECK	Locafrique	Central	Tractor NEW HOLLAND TD 4RM 80 CV	$38,144
Elhadj Mohamed DIOP	Locafrique	South	Tractor NEW HOLLAND TD 95	$35,569
GIE MBODJ ET FRERES	Locafrique	North	1 Combine harvester	$144,330
MAFATIHOU BISRI	Locafrique	North	1 Tractor, 1 combine harvester, 1 Trailer	$271,134
GIE BOROM TOUBA AMOUL MOROM	Locafrique	North	1 Combine harvester, 1 Trailer, 1 Truck + lease back	$205,773
PELLITAL	Locafrique	North	1 Combine harvester NEW HOLLAND –	$313,402
GIE FILS BIRAHIM FALL	Locafrique	North	1 Combine harvester NEW HOLLAND – TC 5040 ; 1 tractor NEW HOLLAND – TC 6050 ; 2disc plow ; GHERARDI	$244,948
GIE NAXADI DERET	Locafrique	North	1 Combine harvester NEW HOLLAND TC54 ; 1 tractor NEW HOLLAND 150 CV ; 1 disc plow+ Disc Plow GHERARDI ; 2 combine harvester NEW HOLLAND – type TC5070	$618,557
ETS BOUNA WADE	Locafrique	North	1 Combine harvester NH TC5070	$183,505
NDIALENE	Locafrique	North	Tractor, 2 graders, 1 combine harvester	$598,186
GIE Mame Oumar Niang	Locafrique	North	Tractor	$94,227
GIE THIAYTOU	Locafrique	North	2 Graders	$618,557
Total				**$3,366,331.59**

Combine harvesters, like this unit acquired and operated by USAID/PCE partner Naxadi Deret, are key in accelerating harvests, and lead the way to double cropping in the Senegal River Valley which currently is farmed at an average intensity coefficient slightly higher than 0.9. The PRACAS goal is to reach 1.8 by 2017.

Access to finance

Financial Coaching and Partnership Facilitation

Financial Coaching: The PCE financial coaching program, which was established in 2010, has significantly improved accounting and financial management of beneficiary groups across value chains. However, despite noted progress, a missing link for the full emergence of competitive value chains was clear: this was the need to support these players in defining marketing strategies and in the development of a suitable distribution network. This became the objective of the commercial coaching program that was initiated by USAID/PCE in 2014 to facilitate access to the local rice market through better positioning and development of downstream contractual linkages. These efforts will continue throughFY15and be extended to more rice value chain beneficiaries and expanded to millet and maize value chains.

Partnership facilitation: To further expand and consolidate its production, processing and distribution of local rice, the company Coumba Nor Thiam (CNT), with the support of USAID/PCE, began discussions to establish a business partnership with a Brazilian company, Terra Ambiental (a subsidiary of JLJ Empresas).Through this partnership, Terra Ambiental will invest up to a 40% stake in the new entity, which will be called CNT Agro-industry SA, in which M. Ibrahima Sall, founder of CNT, remains the majority shareholder. This partnership will also serve as a valuable vehicle for transfer of Brazilian knowledge and technologies to Senegalese value chain actors through CNT. The actual start of the project will require an investment of US $9,853,427 over the first five years, including US $4,996,480 in up-front financing (not including amounts allocated to the pre-financing activities for producer networks). This initial investment will include:

- The acquisition of a semi-articulated trailer truck
- Installation of a new processing plant with a 23 T daily capacity and upgrading of other existing plants.
- Installation of silos / dryers for a storage capacity of 10,000 tons.
- Establishment of distribution points in various urban and suburban centers.

Capacity Building: USAID/PCE works to develop mechanisms and methodologies to boost the supply of financial services for agricultural value chains. As a result, partnerships have been established with several financial institutions and a program created to improve the supply and demand for financial services for actors in agricultural value chains. After the training for trainers (ToT) in Mbodjéne in FY13, twenty PAMECAS officers were trained in St. Louis and 15 in Fatick. The CCMA also conducted training on its information management system for elected participants to foster greater ownership of tools designed for this purpose. The table below shows the beneficiaries participating in financial and business trainings in FY14.

Table 20. Financial and Business Trainings Conducted FY14

Training Topic	Location	Length (Days)	Beneficiaries	Participants (#)
Value Chain Financing	Fatick	2	PAMECAS Agents	15
Value Chain Financing	Saint Louis	3	PAMECAS Agents	20
SIG CCMA	RONKH	1	Elected CCMA reps	9
Total				44

In July 2014, a delegation from Senegal traveled to Brazil to complete the discussions leading to the joint venture between Coumba Nor Thiam Suarl and JLG Empresas. The above picture was taken during a visit to a cereal consolidation center, similar to what is envisaged for Thiagar, that is operated by a cooperative in Casa Branca located 200 Km from Indaiatuba (State of Sao Paulo). Locafrique participated in the trip as it plans to finance the silos, rice mill and truck fleet. Mr Sall requested USAID/PCE's participation in an advisory role. The joint venture is now signed and the project will begin investments in the first quarter of 2015. The project aims to process 100,000 tons of paddy rice annually by 2020.

From left to right: Ndiaga Sall (Conseiller CNT), Mamadou Diop (USAID/PCE), Mme Mame Fatou Athie (Directrice d'Exploitation de Locafrique), M. Babacar BA (Conseiller du Groupe JLJ Empresas et Coordonnateur du projet de joint-venture CNT-Terra Ambiental filiale du groupe JLJ Empresas), Philip Monteiro (Directeur Commercial de Kepler Weber Brésil).

Access to Finance—Perspectives on Scale and Adoption

Results achieved to date by Access to Finance interventions indicate that conditions are met for a scale-up of the models piloted by USAID/PCE. First amongst these conditions is the appropriation and consolidation of the integrated value chain financing models in the irrigated rice and maize sectors, with financial institutions adopting a positive approach to the agricultural sector. However, to fully achieve the scaling potential of those models, certain issues need to be addressed in the mid-term.

Monitoring growth of value chain lending systems: The integrated credit models are growing rapidly. In the SRV seasonal loans by CNCAS have recently tripled. In the maize value chain, local banks find it difficult to monitor an increasing portfolio using traditional loan collection practices. This increases the lending risk and highlights the need for ICT solutions that provide financial institutions, farmers and buyers the ability to monitor in real time inventory collateral levels at designated consolidation points, or to involve partner farmer organization to jointly manage loan collection. Such solutions cannot be small stand-alone applications and their design will need to embed robust controls and procedures that secure banks as to their accuracy and reliability. Also these systems rest on full adoption of key quality control norms and self-disciplined application of such rules by farmer managed warehouses - making the financial system dependent on the wide dissemination of such skills.

Financing white rice distribution and marketing: USAID/PCE has been very successful at financing the value chain up to the production of high quality milled rice. However the pre-paid order driven "just-in-time" delivery approach currently practiced by SRV mills constrains their capacity to finance further growth. It is now imperative for millers to develop third party storage systems to finance the positioning of white rice stockpiles on urban markets, just as it is now practiced in the port of Dakar bonded warehouses for rice imports. The final step will then be the introduction of account receivable factoring mechanisms enabling millers to extend credit to wholesale distributors.

The mainstreaming of value chain lending practices, a form of indirect adoption: At the beginning of the project, financial institutions considered the USAID/PCE value chain lending program as distinct from their mainstream seasonal lending. Banks would monitor and clear the latter as a priority, and often sought to transfer risk to the PCE project when a beneficiary or network member defaulted on a so-called "PCE loan" even though no guarantee mechanism had ever been established or discussed. Today banks are now accepting the removal of USAID/PCE facilitation from the equation and treating the seasonal credit arrangement as part of the traditional farmer portfolio by adding the "maize loans" to the other "credits de champagne" (mainly peanut), which entails an increase of their overall portfolio. This is a very positive outcome in terms of sustainability of the model, yet it shrinks the figures and direct beneficiaries reported to USAID and FTFMS. An M&E challenge will be to evaluate the level of this indirect adoption and develop an efficient mechanism to monitor and evaluate the exact amounts of value chain loans that are now fully integrated into mainstream seasonal bank lending.

Successful equipment leasing and long term financing need embedded financial coaching capacity: Despite difficulties acquiring equipment due to limited supplier inventories, program successes have created a heightened interest in leasing among farmers and financial institutions. This is why USAID/PCE is committed to assisting LOCAFRIQUE to expand its business in areas such as Matam, Podor, and Dagana, where agricultural equipment is even scarcer. Yet it is demonstrated by the program that value chain actors benefiting from such loans require basic financial coaching and monitoring to ensure that equipment acquisitions rest on sound business principles. This service at first can be project supported but needs in time to be internalized by leasing and lending agencies as a central function of their business development teams.

Support the growth and diversification of crop and rain index insurance: The project has been successful in helping CNAAS and its partners launch insurance products targeting key agronomic and climate risks, both in the irrigated and rain fed zones. However the mainstreaming and sustainability of these products will rest on improving the accessibility of all farmers to the products, which is linked to a timely subscription process and the capacity to pay the premiums within the subscription period. It will also require support to expand the capacity of rain index insurance to cover new crops such as rain fed upland rice production by developing new indices, as well as cost effective techniques (satellite imagery) to cover zones that are less densely populated than the Saloum with a sufficient level of precision. Finally, the various initiatives in the insurance field need to be coordinated to maximize impact, avoid duplication and establish a graduation process for vulnerable farmers engaged in R4-type resilience schemes to the commercial cash-based insurance piloted by USAID/PCE.

Technical assistance to smallholder friendly agri-business investments: Several ventures have contacted USAID/PCE for guidance however few have actually been followed by actual investments. The experience with CNT and its Brazilian partner indicate the role a smallholder focused project can have in promoting such a procurement approach. Now that the partnership is a reality, the project team will attempt the development of a USAID/GDA proposal that can pursue the support to this initiative.

2.5 Market Access and Trade

USAID/PCE activities in market and trade facilitation focus on functions and skills that will improve the downstream linkages of farmers with local commercial partners involved in the processing and/or marketing of cereal food staples. Project activities foster value chain integration through contracts, improved quality management capacity, promotional labeling strategies and consolidation storage services.

Market facilitation: During FY14, USAID/PCE provided the following market facilitation to farmer groups and rice mills:

- FEPROMAS obtained a 75 million CFA marketing credit facility with CNCAS for the consolidation of in-kind loan reimbursements. FEPROMAS contacted feed mill SEDIMA who proposed an excessively low price which was deemed unacceptable by FEPROMAS. The Cooperative then initiated discussions with industrial feed mill AVISEN for a 1000 ton maize contract. The final order delivered to AVISEN amounted to300 tons for a total value of 51 million CFA as FEPROMAS members considered they had more lucrative and easily accessible options available at the local level.
- The Wack Ngouna millet group concluded its 2013-14 program with Mamelles Jaboot with the delivery of 172 T of quality millet valued at 34.4 million CFA. The contract was renegotiate and concluded for the 2014-15 season. In addition to Mamelles Jaboot, the Thiare millet producers have contracted 80 T (16 million CFA) of millet with dairy processor Laiterie du Berger (Dolima brand) who also promotes a thiakry yogurt product. As for Maize, farmers still consider the local market their most lucrative option.
- A market services provider was hired by the project to work with rice millers CNT, Mbodj & Frères and Naxadi Deret in setting up structured marketing deals with urban rice wholesalers. Numerous market links were negotiated and purchase intentions of nearly 1000 MT per week have been identified. CNT and Naxadi Deret have entered supply agreements with wholesalers in Thies and Dakar and have set up distribution points in Dakar.
- The World Food Program has placed an initial order of 1800 MT with four rice mills: CNT, Naxadi Dereet, GIE Malal Yoro Gueye, and Women's association FEPRODES. This order was funded by a Japanese grant and destined to a school feeding program in Kaolack. Rice miller CNT obtained an additional WFP contract, this time funded by USAID, to supply 2000 tons of rice destined to the Malian population of Mopti as part of emergency food aid in the current post conflict context.
- WFP intends to procure 10,000 tons of cereals from Senegal in 2014. An important part will be supplying its school feeding programs.

Improved Packaging for Millet Producers: USAID/PCE is supporting millet producers' networks in increasing quality and productivity. In this context, the Project developed brands of bags to support commercial promotion of high quality millet that meets the requirements of industrial processors. One design was created for the Wack Ngouna producers' network which signed a business partnership contract with the agro-industrial firm Mamelles Jaboot. Five other millet producers' networks also have a common design represented by a farmer in a millet field. All supported networks ordered their new branded bags from a local manufacturer to start.

FIARA 2014 (*International Fair of Agriculture and Animal Resources*): The 15th edition of FIARA took place on March 5-18, 2014. This major event not only gives Senegalese farmers a venue to exhibit and sell their products, but also to find business and strategic positioning opportunities in growing markets. As it happens every year, USAID/PCE sponsored the participation of various partners from the value chains of irrigated rice, maize, millet and rainfed rice seeds. An inviting 125m^2 stand located at the entrance of the FIARA premises was made available to them. The location and decor of the exhibition stand contributed to its large number of visitors, who were able

to discover, among other things, new brands of high quality local rice, including aromatic varieties. Within two weeks, 5 partners from the northern zone were successful in selling nearly all of their stocks, i.e. over 90 tons of local rice, for $ 65,000.

Promotional Caravan « Origine Sénégal » Rice: Following the success met by the Village of Local Cereals at FIARA 2014, USAID/PCE decided to continue the promotion of Valley rice. The lack of public knowledge on recent improvements in quality of Senegalese rice and the absence of a real distribution system are major obstacles to the conquest of urban markets. A traveling 'Village' of local cereals designed on the same model as the FIARA Village was set up successively in strategic locations (Pikine, Guediawaye and Dakar). After three weeks, participants were able to assess the potential of the market. In the suburbs, the habit of making small daily purchases and the price, seen as too high compared to the price of ordinary imported rice, were a deterrent for consumers. In Dakar, however, the quality of the local rice, considered more digestible, was a stronger deciding factor than the price and the disposal of stocks was easy. Globally, the caravan was a resounding success, resulting in the sale of a hundred tons and the establishment by valley seed processors of market linkages in the city. This experience motivated some of the participants to establish distribution points.

Market Access and Trade—Perspectives on Scale and Adoption

During FY14 USAID/PCE was successful in getting local rice millers gain visibility on the Dakar market. The promotional events, FIARA 2014 than the rice Caravan, are powerful tools to provide visibility to local rice brands and have generated strong coverage and word-to-mouth which have boosted orders. The challenge remains to get emerging mills in the SRV to link-up with the large distributors who market imported rice. This will require additional coaching and market facilitation.

In the millet sector, the processed quality millet niche initiated with Mamelles Jaboot is promising. The company's leadership and vision have the potential of opening a market for dairy/millet products destined to school feeding and should be followed closely.

In the maize sector, the conclusion by FEPROMAS of a contract with AVISEN is a step towards the large feed mill market. AVISEN was satisfied with the quality but disappointed not to get the full 1,000 tons that was the initial order. It appears at present that local demand is not yet satisfied despite increases in production in the SFZ. This will require further investigations to identify the market channels where the production is being marketed.

It should be noted that farmers get very good prices for their production on the local market, as the selling prices and gross margin figures demonstrate. They are able to meet their financial obligations and procure inputs for the following year. It should also be noted that the situation in irrigated rice is very different as producers are now stepping out of their comfort zone and contracting directly with local mills and honoring their contracts. The risk for a saturation of the local market and a price crash remains nevertheless. This is why USAID/PCE will support the leasing of a storage facility that will help FEPROMAS and other SFZ groups regulate their supply if need be.

As part of its food aid program in Africa, the World Food Program (WFP) launched a tender in Senegal for the delivery of 3,000 tons of white rice to Mali (Mopti). The agroindustry Coumba Nor Thiam (CNT), partner of USAID/PCE responded to the tender and was selected by WFP based on quality and price criteria. Indeed, USAID/PCE supported CNT production of quality rice through training on good agricultural practices. Ibrahima Sall, CNT Director, said: "We welcome the support of USAID/PCE that encouraged us to produce quality rice. As such, we met WFP criteria, which are very strict. I managed to deliver 2,072 tons of white rice to WFP. I am very proud of having WFP as a client."

A new millet brand differentiates the millet produced by Wack Ngouna farmers for Mamelles Jaboot. Notice the presence of the well known Jaboot brand on the bag. Pierre Ndiaye, the Mamelles Jaboot founder, is looking to diversify his brand into sachets of prepared millet to be marketed alongside its yogurt products in grocery stores across Dakar.

The "village des cereales locales" concept was first introduced by USAID/PCE at the FIARA 2012 and was an instant hit. It is strategically located at the fair's entrance. The colorful branded stacks of rice and other cereals are an attraction for buyers large and small and got strong media attention.

2.6 Policy Reform

USAID/PCE's work on policy reform focuses on reinforcing and strengthening the policy and operating environment of Senegal's key agri-food actors. Our work is structured into five main focus areas, four of which deal directly with Government authorities: the Agro-Sylvo-Pastoral Law (LOASP)[12], the National Agricultural Investment Plan (PNIA)[13], the fertilizer sector, and the national system of agriculture statistics. The fifth focal area, though not directly dealing with Government authorities, emphasizes effective organizational structuring to facilitate dialogue among producer groups. This package of project support and assistance drives the establishment of a sound political enabling environment toward increased food security, sustainable economic competitiveness, and good governance of core FTF value chains.

Highlights of FY14 policy reform activities include the following:

1. The 2013 annual LOASP agricultural implementation status report was produced by DAPSA with PCE support;
2. CNCR was returned to its original role as chair of the LOASP committee that manages the official recognition of agriculture-related professions;
3. The process of setting up the PNIA Policy Dialogue Group in collaboration with the Rural Hub and Civil Society is close to complete, with all regional consultations completed and the last stage (national workshop) scheduled for December 2014;
4. The ECOWAS fertilizer quality control mechanism was officially institutionalized by the Ministry of Agriculture and Rural Equipment through the revised mandate issued by CNREFS through Order No. 06948 of 4/22/2014;
5. 50 tablets were purchased by USAID/PCE for DAPSA to facilitate the agricultural survey operations and the real time transmission of collected data;
6. A dedicated remote sensing unit was created within DAPSA to lead the work on satellite imagery methods and begin phasing out USAID/PCE technical assistance;
7. The reorganization of CIRIZ through an inclusive and participatory process led to the formal establishment of four sub-committees, respectively for producers, processors, suppliers of inputs/ technical services and traders in all rice producing zones across the country.

LOASP implementation

Ministry of Agriculture organizational restructuring: Through USAID/PCE, USAID provides support for the organizational restructuring of the Ministry of Agriculture and Rural Equipment. A Purchase Order contract was signed in September 2014 with the Senegalese think-tank, Initiative Prospective Agricole et Rurale (IPAR), to lead the process conjointly with a Senior Advisor who has been employed by the Ministry of Agriculture specifically for this task. A Technical Steering Committee composed of 4 member representatives was also formed by USAID/PCE with the Ministry of Agriculture to supervise the work since its launch. IPAR has already submitted its first completed deliverable, a methodology note, which has been validated by the Technical Steering Committee.

Revision of LOASP Monitoring Committee: In addition, the Ministerial Decree on the LOASP Monitoring Committee was officially revised to clarify responsibilities and to reintegrate a key LOASP player, the CNCR. This decree also appointed CNCR to its original position as lead of the steering committee tasked with formally recognizing the legal status of agricultural professionals. The same decree formally confirmed DAPSA as the coordinating body of LOASP implementation. These advancements are the culmination of the past two years of policy support efforts provided by PCE

[12] The LOASP is a policy framework that was passed in 2004 following a farmer and civil society-driven movement to reform and modernize the agriculture sector through modernizing family farming and promoting rural and agricultural entrepreneurship.

[13] Which is linked to a regional initiative under NEPAD/ECOWAS.

and are significant steps toward including and empowering key stakeholders in LOASP implementation.

2013 LOASP annual status report: The reading committee set up by the Minister of Agriculture and Rural Equipment finalized the 2013 annual LOASP agricultural status report. FY14 marks the third consecutive year that PCE has supported this development. The final version was released by DAPSA in April 2014 and a funding request to carry out priority actions recommended in the report has been prepared for submission to donors.

National Agriculture Investment Plan - PNIA

PNIA implementation committees: USAID/PCE facilitated consultations and technical assistance that have led to revised decree to clarify the respective roles and responsibilities of the implementing bodies of the PNIA (Steering Committee, Technical Committee, Permanent Secretariat and Policy Dialogue Group) was drafted and submitted for approval to the Prime Minister.

PNIA policy dialogue group: PCE, in collaboration with the Rural Hub and the ad-hoc scientific committee, supported two regional stakeholders' workshops during April–May 2014 (in Thies and Kaolack) to establish a Policy Dialogue Group to be led by civil society actors. Combined, the two events were attended by representatives from throughout the country. These meetings focused on presenting the PNIA to stakeholders and exchanging perspectives on the structure, mandate, operational procedures and the priority actions of the Policy Dialogue Group. A national workshop is scheduled for December 2014 to finalize the process and establish the near-term agenda for the Dialogue Group. These meetings were also followed by consultations with nearly all of the major national producer organizations and non-state actors to solicit their input on the process.

PNIA operational plan and communication strategy: In addition, the proposal to produce an operational plan and communication strategy for the PNIA was validated through a national workshop, which was led by the Technical Steering Committee. USAID/PCE is now identifying service providers to bring these items to fruition.

NASAN technical working group – VAT: Terms of Reference for a technical working group on the issue of value added tax facing investors have been elaborated and submitted to the Prime Minister's Office through USAID. This will effectively formalize the operational connections between PNIA and the New Alliance for Food Security and Nutrition (NAFSAN).

Fertilizer policy and sector reform

Establishment of CNREFS: The Minister of Agriculture and Rural Equipment formally established the National Committee of Reflection on Fertilizers and Soil Fertility (CNREFS) through the signing of Order No. 06948 of 4/22/2014, giving full legitimacy to this technical advisory body.

CNREFS monitoring of 2013/14 fertilizer program: The CNREFS, supported by USAID/PCE and other partners, conducted a supervisory mission to monitor the fertilizer component of the 2013/2014 crop year. The mission report made recommendations to improve the fertilizer distribution system including the government subsidy program. This resulted in more timely schedules with the launching of tenders in February for the 2014 fertilizer supplies to address the critical issue of recurrent delays.

Definition of a national fertilizer control body: More specific recommendations were made concerning the official creation of a national fertilizer control body, the appointment of technical inspectors, the accreditation of adequately equipped testing laboratories and a close monitoring of the fertilizer reformulation issue as well as the environmental impact of DAP in irrigated rice farming. In addition to the standard 50 kg packaging, the introduction of 5, 10, and 20 kg fertilizer bags was suggested to better meet the needs of smaller producers.

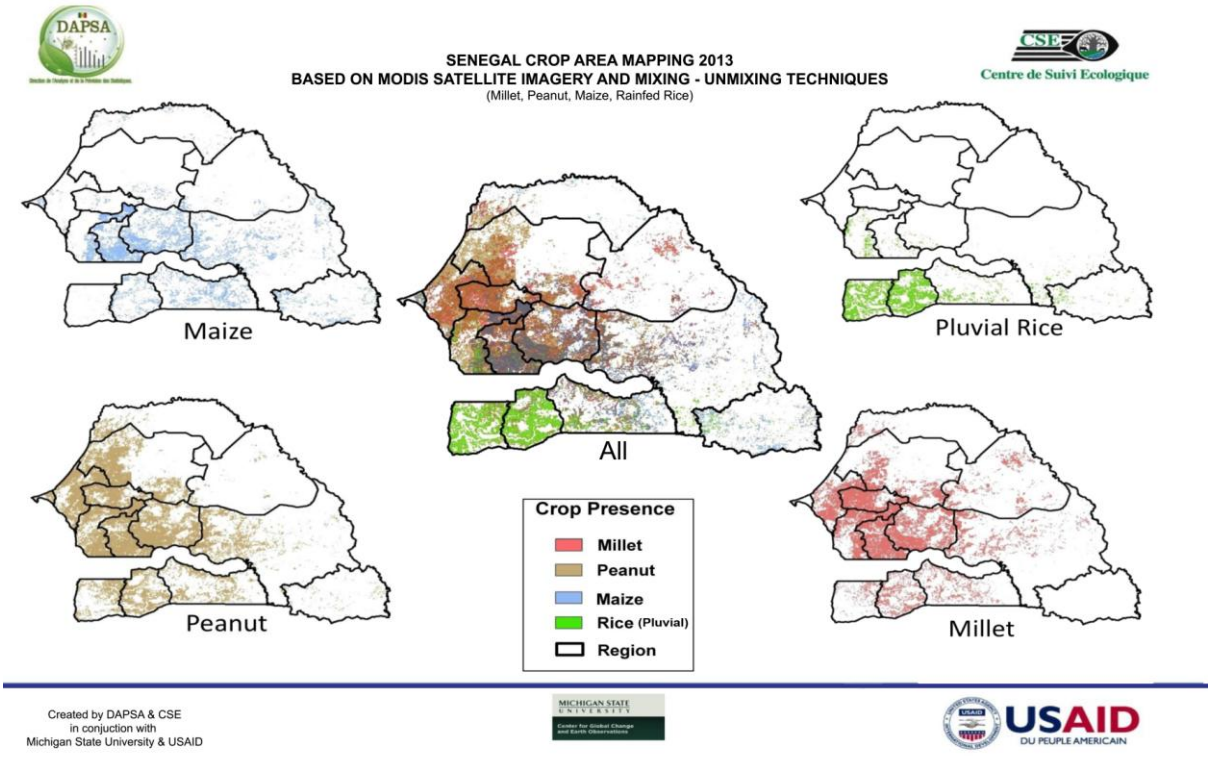
ECOWAS fertilizer quality control norms: The committee continued dissemination of ECOWAS texts on fertilizer quality control through the organization of regional workshops financed by USAID/PCE and the World Bank funded Agricultural Productivity Program. The main target groups were producers' organizations and technical support agencies including the regional directorates of agriculture.

Agricultural statistics

2013/14 agricultural survey: The introduction of new methodological innovations, including the use of GPS, has improved the timeliness and accuracy of annual agriculture survey results. The 2014 results presented in March were validated in April by a National Committee established for this purpose.

Satellite imagery tools: DAPSA submitted the final report on the identification and measurement of blocks for refining the satellite imagery model of crop area estimation. The data was analyzed in June during the technical support mission of Dan Clay from Michigan State University. This base data established the methodology for producing maps of maize area sown through remote-sensing.

Creation of a dedicated remote sensing department at DAPSA: A dedicated remote sensing unit was also created within DAPSA to lead the work on satellite imagery and prepare for the phasing out of USAID/PCE technical assistance. PCE has also supported collaboration between DAPSA and the Centre for Ecological Monitoring (CSE) to pursue and advance the integration agenda while developing internal capacity for effective adoption of remote sensing in the agricultural statistics system. To this end, 50 tablets were purchased by USAID/PCE for DAPSA to facilitate the agricultural survey operations and the real time transmission of collected data.



The above maps were generated by DAPSA, CSE and MSU and shows the crop distributions for rain season 2013

Organizational strengthening and governance in FTF value chains

Rice Sector -Creation of the CIRIZ constitutive subcommittees: Beginning December 2013, in partnership with the Federation of Self Managed Perimeters (FPA), PCE has supported the revitalization of CIRIZ and the establishment of four colleges or stakeholder subcommittees: a) producers, b) processors, c) suppliers of inputs and technical services and d) traders. Grassroots actors were engaged through a highly inclusive and participatory consultation to ensure effective ownership of the process and results. The identification and characterization of potential member organizations were conducted by liaisons (relays) selected within local communities and trained by PCE to use the approaches and methodologies required.

Inclusion of rain fed rice zones as part of CIRIZ: At the Extraordinary General Meeting, held in February 2014, CIRIZ adopted text to extend coverage to all rice producing zones beyond the Senegal River Valley. This extension to rain-fed rice areas across the country is leveraged and continued by the National Fund for Agro-Forestry and Pastoral Development (FNDASP), through a West Africa Monetary Union (WAMU) project on organizational structuring of the rice sector in the region. The General Assembly for the renewal of CIRIZ bodies is expected to take place before the end of 2014. The meeting will serve to complete the process of setting up the new rice inter-professional organization as a platform of services for all members beyond its previous role of representation and negotiation with authorities.

On February 25, 2014, the Extraordinary General Assembly of CIRIZ adopts text to extend coverage to all rice producing zones beyond the Senegal River Valley.

Maize Sector - Support to the creation of a maize inter-professional body: As part of its support to organizational structuring of the maize value chain, USAID/PCE organized information sessions targeted at key value chain actors, to inform them about the legal framework in Senegal related to legal status of producer groups (e.g. related to OHADA). The organizational structures of maize producers, set up with USAID/PCE support in the regions of Kedougou, Kolda, Sedhiou, Ziguinchor and Kaffrine, were chosen as partners by the new IFAD-funded Support Program for Agricultural Development and Rural Entrepreneurship (PADAER). The structuring process will be consolidated by FNDASP through the above-mentioned regional WAMU Commission Project on value chain organization in West Africa

FEPROMAS becomes a Limited Liability Cooperative: As a result of the above training, FEPROMAS changed its statutes to become a cooperative company as this status is best suited to its mission. A general assembly meeting was held in February 2014 to review activities and establish the new bodies of the Federation.

The recently elected board of the new **Cooperative FEPROMAS,** joined by the Kaolack PCE managers, take a break at the Cooperative's seasonal debriefing in February 2014.

From left to right: Aladji Thiam, treasurer, individual farmer; Fatou Ndiaye, 2nd VP, GIE Centrale d'achat Latmingué; Amadou Souaré, PCE; Serigne Modou Mbaye, PCE; Omar Niasse, Secrétaire Général Adjoint, GIE Boubou Dème; Rame Sall, 1st VP, GIE El Hadji Momath Sall, Nimna Diayté, President, GIE Boubou Dème; Hamidou DIOP, General secretary, GIPA Ndramé Escale; Ramata Niasse, deputy treasurer, GIE Keur Amath Yacine.

Policy Reform - Perspectives on Scale and Adoption

The instability related to frequent changes in the top management of key public institutions did not facilitate a smooth rollout of the policy reform agenda. In fact, since the USAID/PCE program started in 2009, Senegal has 5 Ministers of Agriculture. These changes within Ministries naturally create structural changes and pose challenges to the solid continuation of organizational development gains obtained through the project. Though USAID/PCE cannot directly change this, the project has responded proactively by emphasizing the inclusion of middle-managers in programming and capacity building as these individuals are less likely to leave the Ministry when the leadership changes. Similarly, support to LOASP implementation cannot be fully effective until a clear governing structure and leadership is defined. In fact, most of the thematic groups stopped functioning due to outdated structures following changes in the configuration of key ministerial departments and agencies involved. As a sustainability measure, future collaboration should ensure that intermediate technical staffs within ministerial departments and support agencies are closely involved in collaboration initiatives.

Moving adoption of the new methodology for satellite-measured crop areas forward for complete adoption in the agricultural survey system may require some further technical assistance for DAPSA/CSE from the pioneering MSU team for an additional two years.

2.7 Institutional and Human Capacity Building

The capacity building component of PCE is intended to support overall sectoral goals across the project and to ensure successful and sustainable transfer of ownership. As such, USAID/PCE has developed and supported needs-based capacity development activities for various groups including professional organizations, private agri-food value chain actors, training institutions, rural support agencies and government. The capacity building for these actors is geared toward bolstering the ability of primary producers to operate more efficiently, to understand and meet quality standards, to get organized as market actors and to take advantage of business opportunities.

A specific focus is on developing adequate skills to understand and apply the Value Chain approach and principles for a critical mass of agri-food actors, spanning from small-scale entrepreneurs to policy analysts, development experts, field support agents and professional trainers. Practical challenges for capacity building at the farmer level are mainly related to the heterogeneity of stakeholders and the large array of capacity gaps even within each category of actors. These different actors each bring a unique perspective and capacity level, and as such require uniquely and iteratively tailored learning objectives and training methodologies to efficiently meet partners' expectations and promote ownership of support programs.

Experience with previous implementation years has shown that capacity building activities for rural producers are difficult to organize during the first and fourth quarters of our financial year due to conflicts with their seasonal calendar. PCE has therefore concentrated most of the annual activities in the second and third quarters in order to provide trainings at the most appropriate timeframes, during which participants will immediately apply new technologies and methods.

Ministry of Agriculture

After three years of implementation through the Bureau of Vocational Agricultural Training (BFPA), the PCE-supported Capacity Building Program produced significant results. In FY14, BFPA assumed direct responsibility for activities with PCE support. The Ministry of Agriculture was pleased with the work and agreed to formally institutionalize the program in the Ministry. This move included the substantial funding allocation of 60 million CFA for 2014through the regular annual budget. However, this momentum was challenged by delays in mobilizing funding for some activities, so to consolidate the achievements of the program for this first year of institutionalization, USAID/PCE continued to provide support through a cost-share arrangement for the six budgeted training sessions. In addition to the staff of DA, DHORT and DAPSA, target groups were expanded to include the Regional Directorates of Agriculture (DRDR), technical support agencies (SAED, SODAGRI, ANCAR etc.) and agricultural development projects (LOUMAKAF, BARFAVOR, PAFA, PAPSEN, PASA, etc.).

The final evaluation of the 2014 program is scheduled for December 2014, and will serve as an opportunity to analyze the coverage rate of the program as well as the overall impact the program has had to date on institutional performance.

ENSA Agribusiness Master's degree

Per USAID request, the PCE team engaged in consultation and technical advisory meetings with the ERA project to continue the handover of the Agribusiness Training Program support activities. The PCE Chief of Party participated as a resource person in a training session aimed at reinforcing teachers' understanding of the value chain approach with concrete cases developed by PCE.

An agreement was founded with the ENSA program manager to provide access to PCE's extensive databases for graduating students to use in developing their final research papers. This would significantly contribute to more efficient valorization of accumulated information resources collected for the monitoring, evaluation and management of PCE activities across supported value chain networks.

Seed sector development

In August 2014, 25 officials from the Ministry of Agriculture and Rural Equipment received a 5-day training on seed policy and national seed capital reconstruction issues. The session was facilitated by a team of five specialists, and ended with a tour of seed fields and the laboratory of the ISRA National Agricultural Research Center of Bambey. The following eight modules were covered in the course:

1. National seed policies and strategies;
2. Seed Regulatory Framework in ECOWAS countries;
3. Varietal improvement for adaptation to drought and climate change;
4. Status of national and regional catalogs of species and varieties;
5. Principles of seed and seedlings production for rice, maize, sorghum and cassava;
6. Mechanism of approval and registration of varieties: peanut, rice, sorghum and maize;
7. Mechanisms of control and certification of varietal and sanitary quality of seeds and seedlings;
8. Rationale and practical considerations for post-control checks.

Private Agri-Food Value Chain Actors

Capacity building program

The training programs given directly by PCE staff in FY14 (not including those delivered through POs with value chain networks) covered twelve different topics, including the following: good practices in irrigated rice framing; output quality control; conservation farming; M&E data collection and analysis tools and methods; value chain financing; satellite imagery for crop area estimation; Web 2 applications; seed sector policy; and development strategies; among others. The total attendance reached 656 participants including 13.4% of women. Details on the topics, dates, participants, and target organizations for each training are listed in the table on the following page.

Institutional Development (OCAT)

As the need to create a solid framework of partnership for transfer of ownership of FTF programs remains a major priority for PCE, the project has introduced a new performance indicator deriving from OCAT (Organizational Capacity Assessment Tool). The addition of this indicator is intended to provide a qualitative assessment of the organizational development and institutional capacity changes resulting from project efforts. To this end, seven organizations were selected by PCE from different intervention zones as target beneficiaries for these particular efforts. Basic cross-cutting partnership requirements such as official recognition, simple record keeping and the existence of a bank account are priority items that are currently being addressed.

OCAT-related activities will be pursued with the first group to consolidate progress made, fill the remaining gaps, and then extend coverage to another group of 18 partner organizations who have already been identified.

As part of the implementation of the Joint Action Plan developed by USAID/PCE and Yaajeende, teams of both projects shared the OCAT tool that was applied in September2014to AKNB, a common partner organization. The institutional assessment resulted in a capacity building plan with actions to be implemented internally and others that require external support. Yaajeende adopted the OCAT process and will independently apply it to three of its partner organizations.

Table 21: Training workshops held in FY14 by organization and topic

Theme/Topic	Dates	Location	Participants (#)	F (#)	Partner Organizations Targeted
Path to Good Quality Rice	5-6 August, 2014	Ndioum	26	3	UJAK, Fanaye, Nianga, Diomandou, FEGINA, Wodoss Peté, Donaye,
	16-17 July, 2014	Matam	19	0	AKNB, Orkadiéré, PIDAM, Union Matam, Ounaré
Output Quality Control	7-8 August, 2014	Ndioum	17	0	Fanaye SP1, Le Paysan, Pellital
	11-2 August, 2014	CIFA	21	10	REFER, Al Thiaka, Rassoulna, Dramécounda, Deggo Bokk Jom, Malal Yoro, Takku Ligguèye
	13-14 August, 2014	CIFA	17	7	La Paysanne, Khar Yalla, Fatoumata Bintou Diop, Mame A. Aziz SY, Thieytou, Teranga
	18-19 July, 2014	Ourossogui	7	0	Kobilo, Matam
Conservation Farming & Best Practices	1- 2 July, 2014	Kolda	5	0	FODDE
	5-6 July, 2014	Sédhiou	5	0	CASADES
	7-8 July, 2014	Medina	7	0	ASED
	10-11 July, 2014	Nioro	10	0	Nioro Alassane Tall et Keur Samba Guèye
Data collection & Cartography Tools	7-8 June, 2014	Vélingara	21	6	Kissal, FODDE, ASED, Fabo
	11-12 June, 2014	Kolda	27	1	AVSF, Sedab, Diankacounda, Caritas Kolda
	13-14 June, 2014	SEFA	24	1	COOPAD, Assolucer, CASADES, Caritas Ziguinchor
	4-5 June, 2014	Toubacout	24	0	Keur Samba Guèye, Nioro Alassane Tall, Keur Saloum Diané
	16-17 June, 2014	Nioro	25	3	FEPROMAS, Symbiose
	18-19 June, 2014	Kaolack	28	0	Kahi, Gainte Kaye, Baybayate, Mabo, Paoskoto, Wack Ngouna, Thiaré
	7-8 August, 2014	Ndioum	25	2	U. Pété, FEGINA, Diomandou, Nianga, UJACK, Donaye
	8/9/2014	Ndioum	13	3	GIE Paysan, Pellital, SP1 Fanaye
	8/11/2014	CIFA	16	5	UFP, FEPROPDES, GMF, CNT, Naxadideret
	8/12/2014	CIFA	17	7	GIE La Paysanne, GIE L Mame A. Aziz. SY, GIE Fatou Bintou, Khar Yalla, Teranga, Thieytou
	8/13/2014	CIFA	21	10	GIE Malal Y. Guèye, GIE Althiaka, Deggo Bokk Jom, Takku Ligguèye, Rassoulna, Dramécounda,
	16-17 July, 2014	Ourossogui	27	1	AKNB
	18-19 July, 2014	Matam	31	2	Orkadiéré, Kobilo, Matam, Ounaré, AKNB, PIDAM, SAED
	21-22 July, 2014	Ourossogui	30	0	Orkadiéré, Kobilo, Matam, Ounaré, AKNB, PIDAM
Geographic Information Systems	25-30 Dec 2013	Saint-Louis	9	0	CCMA Agents
Microsoft Excel	27-29 August, 2014	Ourossogui	11	1	AKNB, PIDAM, Orkadiéré, Matam, Ounaré, Kobilo
M&E Data Analysis	28-29 January, 2014	Kaolack	7	0	Kahi, Gainte Kaye, Baybayate, Mabo, Paoskoto, Wack Ngouna, Thiaré
	30-31 January, 2014	Nioro	8	1	FEPROMAS
	11-12 February, 2014	Richard Toll	8	1	CNT, Naxadi Derete, Feprodes, UFP, Mbodj et Frère, Coop Podor, Coop Matam
	7-8 January, 2014	Kolda	10	1	Assolucer, AVSF, Caritas Kolda, Caritas Zig, Fabo Dental, Symbiose, Keur Samba Gueye, Kissal Patim
Satellite Imagery Application	7-20 June, 2014	Dakar	6	1	DAPSA
Web 2.0 Applications	21-25 July, 2014	Dakar	26	10	Dapsa, Pafa, Bfpa, Barvafor, Direction de l'Agriculture, Direction Horticulture, Saed, Disem, Pasa
Integrating Crops and Bees to Boost Yields	14-18 July, 2014	Dakar	25	4	Dapsa, Bfpa, Papsen, Ancar BAS, DRDR, Direction de l'Agriculutre, Direction Horticulture, Saed,
Seed Sector development Policies and	11-5 August, 2014	Dakar	25	6	Bfpa, DRDR, Dapsa, CIH St Louis, Direction Horticulture, Direction Agriculture, CFPH, CIH
Production Planning	9/25/2014	Kaolack	24	2	Kahi, Gainte Kaye, Baybayate, Mabo, Paoskoto, Wack Ngouna, Thiaré, FEPROMAS, Keur Samba
Value Chain Financing		Saint Louis	20	0	
		Kaolack	14	0	
TOTALS			**656**	**88**	

Value Chain Training Extension Structures

PCE's capacity building approach for trainings on best practices, quality control, and database and information system activities is founded on extension structures that emphasize building local capacity (of institutions and individuals) through local training contracts. Instead of using the traditional approach of hiring project-dedicated field agents to travel throughout a region, USAID/PCE works with partner networks to identify locally-based and trusted leaders to form a core team that manages and executes training and popularization of new technologies and approaches. USAID/PCE provides direct trainings of trainer (ToT) sessions to extension agents ("facilitators"), who then deliver trainings to other members of their producer network. Facilitators and lead farmers deliver trainings to "satellites," who grow their crops around demonstrations sites. Lead farmers who run these demonstrations receive regular follow-up support and on-site training and guidance from network facilitators, and liaison agents known as "relays," who provide training support for lead farmers that support large satellite groups. This technical team also works closely with the database manager, who collects, tracks, and analyzes all data for the network (received regularly from facilitators) and serves as POC for the USAID/PCE M&E team. Their activities (and all activities of the network) are coordinated by the network supervisor. Compared with the traditional single field agent method, the USAID/PCE extension structure approach transfers ownership of proven improved technologies while building local capacity, increasing cohesion among producers, increasing amount of follow-up support provided to beneficiaries by trainers, and exponentially expands the reach of best practices in a more cost-efficient way.

In addition to trainings, USAID/PCE provides the following to the partner network extension teams to facilitate their work:

Database managers: solar-powered netbook computers with excel and other software programs installed; **Facilitators**: technical guides (and visual posters) produced by PCE; low-cost instructional videos produced by PCE (some of which are also filmed by the lead producers); **GPS devices** (one per facilitator); **Network**: Quality control testing equipment (one set per network); Video camera (one per network) for filming the low-cost best practice videos (PCE trained different representatives from each network on how to film, edit, and finish an instructional video).

The following table outlines the value chain extension structures that drove the FY14 capacity building activities on best practices ("Le Chemin du Bon Riz" and best harvesting practices), quality control, and database and information systems activities described in section 2.1 on Value Chains. The table shows the number of each extension structure actor in relation to the total number of demonstration sites run and the total number of satellite farmers trained. It should be noted that all non-satellite actors received direct trainings for trainers (ToTs) from USAID/PCE as well. The program for quality control was just introduced to the rainfed rice sector for the 2014 rain season (meaning quality control activities are expected to take place in November/December 2014) and will therefore be reported with FY15 results.

Table 22. Value Chain Extension Structure and Training of Trainers FY14										
	Irrigated Rice		Rainfed Rice		Maize		Millet		Total	
	Total (#)	% F	Total (#)	% F	Total (#)	% F	Total (#)	% F	Total (#)	% F
Best Practices										
Demonstration Sites	228		780		141		146		1,295	
Supervisors	28	39%	0	0%	0	0%	0	0%	28	39%
Facilitators	92	27%	110	8%	84	7%	25	4%	311	13%
Liaison Agents	40	0%	0	0%	0	0%	2	50%	42	2%
Lead farmers	228	6%	764	36%	238	24%	163	4%	1,393	26%
Satellites	6,840	10%	15,581	59%	7,411	10%	2,415	23%	32,247	35%
Subtotal BP	7,228	10%	16,455	57%	7,733	10%	2,605	22%	34,021	34%
Quality Control										
QC Sites	113		*Quality control program for rainfed rice added in RS2014*		13		7		133	
Supervisors	23	48%			4	0%	0	0%	27	41%
Facilitators	57	39%			84	7%	25	4%	166	17%
Liaison Agents	0	0%			0	0%	2	50%	2	50%
Database managers	23	13%			13	8%	7	0%	43	9%
Subtotal QC	103	35%			101	7%	34	6%	238	19%
Database and Information Systems										
Databases (#)	33		15		13		7		68	
Supervisors	28	39%	0	0%	4	0%	0	0%	32	34%
Facilitators	92	27%	110	8%	84	7%	25	4%	311	13%
Liaison Agents	40	0%	0	0%	0	0%	2	50%	42	2%
Database managers	33	12%	14	0%	13	8%	7	0%	67	7%
Subtotal DB	193	21%	124	7%	101	7%	34	6%	452	13%

Institutional & Human Capacity Building - Perspectives on Scale and Adoption

Experience shows that defining appropriate contents of training programs requires an iterative and participatory process involving the prospective trainers and trainees as well as key stakeholders. To maximize impact, technical training should focus on immediately applicable skills but bearing in mind that addressing constraints to effective utilization of existing skills is not less important than adding new ones. In most cases, training should not be delivered as a one-off activity and generally needs some iteration, refreshers, and follow-up to maximize results.

As mentioned above, rural producers are not available for workshops or activities during the first and fourth quarters of our financial year due to their seasonal calendar. This implies the need to concentrate most of the activities in the second and third quarters.

A cascaded training approach may be a good way to reach a critical mass but the first stages need close monitoring to ensure accuracy and efficiency. Adequate sequencing of capacity building should be informed by a clear understanding of beneficiaries' constraints and a clear identification of prerequisites for each type of core intervention.

3. CROSS-CUTTING THEMES

3.1 Climate Change Adaptation

To address climate change stresses while meeting global and local needs for food security, Feed the Future programs require a sustainable intensification of production. This requires the use of approaches that together reduce negative environmental impact on landscapes and increase farmers' and value chain actors' capacities to adapt to the climate and non-climate stressors and shocks that threaten sustainable economic growth and food security.

USAID/PCE addresses climate change through a range of adaptation-related activities that respond to the risks associated with changes and variability in rainfall patterns (timing, quantity, intensity) or temperature, which could undermine overall long-term agriculture productivity. Project interventions are scoped to boost availability of cereals to rural households and to ensure a stable supply for urban and animal feed markets. USAID/PCE's increased focus on climate change adaptation complements FTF's focus to scale up impacts by adding an element of long-term sustainability to Senegal's food security model. Farmers' adaptive capacity is increased through the following project results: increased yields, increased access to markets, increased access to new and improved technologies (soft and hard), strengthened farmer support networks, increased access to credit and financing mechanisms, availability and increased access to rain-indexed and conventional crop insurance, and improved rainfall tracking and ability to interpret climate and weather information for local decision making. Through the promotion of these activities key stakeholders ranging from local agriculture technicians and planners to government officials are being increasingly informed on risks and strategies associated with adapting to climate change on both inter-annual and intra-annual timescales.

The outcomes of project interventions in climate change adaptation are also captured in the three following standard indicators: (i) Number of people with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance; (ii) Number of climate mitigation and/or adaptation tools, technologies and methodologies developed, tested and/or adopted as a result of USG assistance; and (iii) Number of stakeholders implementing risk-reducing practices/actions to improve resilience to climate change as a result of USG assistance. Please refer to the Monitoring and Evaluation section of the Work Plan for target values for the indicators.

Farm-level actions to improve resilience to a changing climate: USAID/PCE has extended promotion and trainings on best practices for conservation farming (which protect crops, improve water and soil nutrient retention, and reduce runoff)[14] to all cereal value chains in FY14. Farmers have increasingly noted that gains in yields have been drastic in demonstration and early adoption plots[15], which has promoted further adoption by satellites. Increased yields from improved farm-level practices and technologies have in turn resulted in increased availability of fodder for livestock, which indirectly improves resilience of surrounding communities. Sustainable intensification is embodied by risk reducing practices that both diversify income and boost yields through crop diversification. USAID/PCE promoted these practices in FY14 through facilitating the entry of farmers into multiple value chains (rice farmers extending into maize, for instance) and providing trainings on integrating bee keeping to boost yields and incomes.

[14] The low and no-till practices included in CF are also known to reduce land-based emissions. Similarly, tracking and registering plot sizes allows for more efficient use of fertilizer, also reducing land-based GHG emissions. Though USAID/PCE does not track GHG mitigation we have noted potential to do so in some activities.

[15] For example, for RS2013, maize crops under strict CF adherence showed an average yield of nearly 57% more than yields in parcels where CF was not implemented.

Improved access to appropriate seed varieties, and to high quality and certified seeds: Access to improved seed varieties is one of the most effective ways that farmers can adapt to changing climates. USAID/PCE's work establishing the infrastructure and strengthening the institutions to support the production, multiplication, control, and marketing of seed varieties that are adapted to farmers' needs is a significant activity for increasing resilience. Seasonal debriefings are used as platforms for consensus-based validation and selection of seed varieties each year. Farmers discuss performance of seed varieties and reflect on the best varieties for their specific location and needs. Through this process farmers decided to narrow NERICA varieties to NERICA 4 and NERICA 6 and introduced new ISRA[16] seed varieties for the 2014/2015 season. The decision was made based on farmers' assertions that these varieties have proven to be best adapted for the plateaus and the lowlands. Harvest and multiplication results will be reported in FY15.

Enhanced access and quality of information through improved methodologies for tracking national and regional-level climate anomalies: Improved data availability and capacity to track and interpret climate data has been enhanced from the national to local level. USAID/PCE has worked with partner networks to install a thorough density of rain gauges (including some newer models that automatically transmit data) throughout rainfed intervention zones. Trainings on how to read, interpret, and report rainfall data were provided to selected farmers throughout the country who send daily rainfall reports to USAID/PCE for consolidation. Using this data, USAID/PCE generates monthly rainfall tracking reports and color-coded maps that are shared back with networks to enable better management decisions for planning and timing of farming activities. This work has been reported by some networks as having attracted the interest of MAER field agents in some regions, who have requested the data to use in their reporting. In addition to working at the field and regional level with partner networks, USAID/PCE has facilitated the enhancement of remote sensing capabilities of the Ministry of Agriculture through access to a new tested satellite imagery model for crop area sensing, which also has the potential to be used for tracking vegetative health as well as land use changes. A dedicated remote sensing unit was also created within DAPSA to lead the use of satellite imagery methods. USAID/PCE also provided tablets and other equipment to enhance reliability and real time transfer of ground level data.

Rain-indexed and conventional crop insurance: USAID/PCE worked in collaboration with CNAAS to implement a training and awareness-raising campaign on agricultural insurance (which covers losses caused by floods and foragers) for employees of financial institutions and producer networks from the Senegal River Valley. Flyers, brochures, posters, and radio show broadcasts reached the upper end of 3,000 people by Q2 alone. In addition to the introduction of conventional crop insurance, USAID/PCE has worked similarly with financial institutions CNAAS and PlaNet Guarantee and value chain partner networks to provide a rain-indexed crop insurance program to farmers working in rainfed cereal value chains (though they are also covered for peanut and other niche crops that some farmers rely on for primary income). As mentioned above, USAID/PCE increased the geographical density and the reliability of collected data through the installation and training on manual and automatic rain gauges. These efforts reduce collection time and costs for insurance companies—keeping index insurance premiums low and affordable for small holders. Farmers have shown a drastic appreciation and rapid adoption of conventional and rain-indexed crop insurance, demonstrated by the fact that networks have begun prioritizing pre-financing of crop insurance premiums independently of credit institutions when necessary. Similarly, the win-win nature of crop insurance coverage is embedding it in production financing processes: farmers have begun including crop insurance on their loan applications and credit institutions are adding a clause to standard contracts to acknowledge that having insurance increases the strength of applications.

Capacity building and awareness raising of government and local actors on climate change and climate-related themes: Direct trainings provided to government agencies on the use of remote

[16] DJ-12519, IR-1529, BG-90 2, and various Sahel varieties. ROK 5, ITA-123, TOX 728 were also identified as preferred varieties but seeds were unavailable at the time of purchase.

sensing model for tracking vegetation and crop area coverage has improved institutional capacity at the Ministry of Agriculture to track and respond to climate-related impacts on food security in Senegal. Additional trainings provided to government and local actors[17]on the following themes in FY14 addressed climate-related topics to varying degrees: Path to Good Quality Rice; Conservation Farming & Best Practices; Integrating Crops and Bees to Boost Yields and Farmers Revenues; Production Planning; Seed Sector Development Policies and Strategies; Data Collection & Cartography Tools; and Satellite Imagery Application. In addition, PCE supported better use and control of fertilizer standards and better understanding and selection of fertilizer formulas (i.e. which are most appropriate for the respective uses and needs of each agro-ecological zone), as well as improved distribution and use of more appropriate amounts to reduce runoff. These efforts culminated in FY14 when the Minister of Agriculture and Rural Equipment officially institutionalized the ECOWAS fertilizer quality control mechanism and formally established the National Committee of Reflection on Fertilizers and Soil Fertility (CNREFS) through the signing of Order No. 06948 of 4/22/2014.

Observations and lessons learned

The sustainable intensification of crop production is an essential component for value chain strengthening, as is climate adaptation, which is an increasingly critical area of focus in agriculture-dependent countries. Observed and projected changes in rainfall patterns pose an imminent threat to farmers whose livelihoods are exposed to weather patterns. Therefore, FTF programs must be agile and responsive, and help farmers and local stakeholders find and quickly disseminate appropriate and innovative solutions.

Through the past 4 years of implementation (and learning from previous experience implementing Wula Naafa), the USAID/PCE team continues to identify solutions and connect local actors to strengthen human and physical infrastructures against negative climate impacts. As referenced above, USAID/PCE sees further potential to build on achievements and lessons learned from across the program to expand the focus on climate adaptation activities and embed the now established value chains with a deep resilience against climate shocks. In addition to expanding adaptation activities, more can also be done to mitigate GHG emissions across local and national value chains, from production to processing to marketing activities.

USAID/PCE has also noted the potential to innovatively utilize the wealth of data collected across program activities to develop crop-sensitivity analyses and plot-level data aggregation to provide farmers and partner networks with additional dynamic and robust decision-making tools. At the national level, the work with DAPSA shows promise for further development as well. Though the methodology was developed for producing maps of area sown through remote sensing, it lays the groundwork and provides primary infrastructure and database for a GoS-driven agricultural early warning system. Capacity building institution BFPA would also leverage its role within MAER and act as a focal point for collaborating with other GoS agencies on training and awareness raising for adapting to climate change in Senegal's agricultural sector.

[17] The table in the Institutional and Human Capacity Building section shows the specific institutions that attended each training.

3.2 Gender

In addition to collecting and tracking gender disaggregated data for all project activities, USAID/PCE holds gender equality and empowerment as a cross-cutting project priority. As such, USAID/PCE seeks to expand opportunities for women-owned businesses and for cooperative organizations that assist women to benefit from project actions in FTF priority value chains. This implies ensuring that they benefit directly from project investments and thereby, gain improved capacity and access to production resources such as seasonal credit, small business loans, and other equipment leasing, etc. Throughout project implementation, USAID/PCE advocates for the inclusion of women in value chain development and related capacity building activities. USAID/PCE also emphasizes the inclusion of women in dialogues on agricultural investment and growth constraints through the project's policy reform component. The following are highlights of gender-related results in FY14:

USAID/PCE leveraged gender disaggregated data (on yields, production area and income) from the 2013/2014 rain season[18]to foster dialogue within and among beneficiary groups on gender equality and empowerment through an analysis of results achieved and lessons learned. These discussions were held at stakeholder workshops at the community, regional and national level in March 2014 and corresponded with planning for the upcoming 2014/2015 season activities. A key outcome of these dialogues was that farmer groups recommended that the USAID/PCE rainfed rice portfolio be extended to lowland areas in order to reach more women who are the primary lowland rice farmers.

USAID/PCE included stakeholder recommendations for gender emphasis in the project's extension program and has placed a special focus on identifying and engaging additional women's groups for FY14 and FY15 across all value chains. As a result, the number of women receiving USG assistance through USAID/PCE has increased from 11,533 to 15,645 between FY13 and FY14. Most notable was the increase in women's associations reached in irrigated rice, from 2 to 12, and the significant scale-up of rainfed rice demonstration sites to 780, 36% of which are led by women. Women's participation in FY14 capacity building trainings has increased project-wide in all value chains, for a total percent increase of 28% in FY13 to 35%.

Women's associations have also been supported through equipment grants (for pallets, scales, quality testing equipment, etc.), primarily FEPRODES and Union des Femmes Productrices de Ross Bethio, who have been engaged in the USAID/PCE quality control program since it was launched in the SRV in late FY13.

Participation of successful women-owned farmer groups at high-profile events provided platforms for sensitization around women's empowerment and drew national and international attention to the success and economic benefits to be gained through gender equity in traditionally male-driven value chain enterprises. These included: FEPROMAS President, Nimna Diayte, presented on her success through adopting USAID/PCE technologies in the international Cracking the Nut conference in Kigali, Rwanda in January 2014; USAID/PCE sponsored women-led farmer group FEPRODES and its Rizchard brand in the FIARA 2014 exhibit in March 2014; the women-owned enterprise GIE Malal Yoro Gueye, who recently benefited from an ADF grant, participated in the rice caravan in Q3 through which its product was introduced and sold throughout several boroughs in Dakar; the participation of Ms. Daba Fall, procurement director at SRV rice mill VITAL Agro Industries, who presented her experience in a plenary session at the Feed the Future Global Conference in May 2014.

Understanding and addressing barriers: Women are often described as key actors of the agri-food sector but their levels of involvement in different cereal value chains is shaped by socio-cultural considerations that vary across regions and ethnic groups. Interventions to reinforce women's equality in different value chain activities should be based on a good understanding of roles and

[18] These were the seasonal programs launched in late FY13 and completed in FY14.

relationships within the culturally-defined household economy, particularly in the SFZ where traditions seem to be more deeply rooted.

Promoting gender balance in program interventions: USAID/PCE's expansion approach is based on developing partnerships with women groups particularly in irrigated rice, extending geographical coverage to women dominated lowland zones for rain-fed rice, while promoting women's leadership in the organization and governance of the maize sector and hiring more women as technical specialists deployed in the field. USAID/PCE has seized the opportunity to engage stakeholders in reflection and action on creating more balanced participation and opportunities for women across and along value chains. However the impact of historically embedded gender divides has been noted in project implementation as well. For instance, to ensure project consolidation and scale, USAID/PCE uses pre-requisites and a minimum education background for participation in some training activities, which can in some instances limit access for women, who tend to have a lower literacy level than their male counterparts. In the same way, the participation of women in capacity building programs for value chain support agencies and government institutions is limited by the lack of gender balance in these institutions' employment structures (from entry-level to senior management).

In addition to advocacy and dialogue, USAID/PCE has informally promoted 'Gender Champions' (positive deviants) within local communities and producers groups. Moving forward, this concept could be more formally explored and tracked in upcoming training groups in all value chains and should be linked with an in-depth gender assessment and action plan for further scale.

3.3 Science, Technology and Innovation (STI)

The primary contribution of USAID/PCE to the cross-cutting issue of STI is its work through development of commercially-viable and competitive cereals value chains to rapidly introduce improved seed varieties as well as improved farming techniques and post-harvest handling technologies. The project's approach of working through structured farmer networks supported by market-oriented consolidation groups has proven to be a strong vector for the rapid dissemination and expansion of these techniques and seed varieties.

For this extension year, the project's focus has been on scaling adoption of proven technologies and on communicating the results achieved in terms of new technology introduction through local and national stakeholder workshops as well as ensuring the full documentation and transfer of knowledge assets:

Technology debriefings: Annual sector workshops were held for rain fed rice, maize and millet in the South Forest Zone which brought together farmer networks to discuss the performance achieved through the application of various technologies: rain fed rice and hybrid maize varieties, conservation farming and other best practices. Farmer databases provided the farmer organizations with quality data on the application of the technological package and the achieved yield levels. Training in basic pivot table analysis enabled the groups to produce yield distribution curves for each variety and compare performances. This has led the rain fed rice groups to recommend the prioritization of certain NERICA and other lowland varieties in the rain season 2014 multiplication program. (see Value Chain section)

Extension of dissemination: For its rain season 2014 program, the project expanded certified seed technology dissemination activities for irrigated rice, rain-fed rice and maize by the identification of new partnerships and the expansion of the coverage of existing ones (see Value Chains section). Activities included field demonstrations, seed certification and development of community level distribution channels in collaboration with Yaajeende.

Quality control technologies: The extension phase program was also the occasion the disseminate quality control norms and associated sampling and analytical testing technologies. On the institutional level, the methods were shared with CIRIZ and SAED in the Senegal River Valley in the perspective of having them become standard practice throughout the zone.

Rainfall data collection network: Databases technologies were enhanced in FY 14 by the addition of systematic rain fall data collection at the community level and the consolidation of the information to produce rain fall distribution maps in quasi-real time based on more than 150 observation points spread across the SFZ. This approach has caught the attention of weather service ANACIM and may be piloted by this organization in FY15.

Creation of a metadata catalog: Linkage with USAID/ERA generated an interest in sharing the farmer databases so graduate students may use them as the basis of their research projects. It is expected that before USAID/PCE closeout in FY15, ERA will support the preparation of a data catalog and structure the databases so they may be easily exploited by researchers, in particular those investigating adoption patterns in rain fed zones.

Expansion of cloud-based ICT's: To enhance data collection, Dimagi's CommCare application was piloted at the Thiare millet farmer's group. The pilot was successful as it accelerated data transmission from the farmer communities to the organizations database manager. The technology is being adapted for its expansion to FEPROMAS.

4. COMMUNICATIONS

USAID/PCE is a leading player in the promotion of cereal value chains in Senegal and has introduced a number of innovative approaches and tools that are changing, for the better, ways of doing business in maize, rice, and millet. During the closeout year, the focus will be to highlight and document PCE's key achievements as well as the lessons learned to inform future FTF and similar initiative interventions.

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The following provides a point-by-point summary of the main Communications activities carried out in FY14. Annex 1 includes additional success stories from this period of performance as well.

Thematic Television Panels on Agriculture Growth Challenges: Starting FY13, USAID/PCE sponsored 3 TV programs on "Senegal's Agriculture Growth Challenges". These programs were produced in partnership with TFM, a high audience private TV channel. The third program was recorded on December, 8th and dealt with agricultural financing, including discussions about the implications of Senegal's entry into the New Alliance for Food Security and Nutrition as well as the connections with LOASP, the 2004 Agriculture, Forestry, and Livestock Act. Panelists included representatives from the National Agriculture Bank, the National Insurance Company, the National Producers' Federation, and the Ministry of Agriculture. The discussions, moderated by TFM director and journalist also touched on how to optimize resources through better coordination among institutions dedicated to agriculture financing. In addition, the panel debated the role of insurance in boosting confidence of lending institutions in the agricultural sector, interest rates, and commercialization.

Awareness Campaign on Agriculture Insurance in Senegal River Valley: USAID/PCE supported CNAAS, the National Agriculture Insurance Company to carry out a communication campaign on agricultural insurance among producer groups from the Senegal River Valley (North). Irrigated rice fields are often subject to bird attacks and floods that can damage up to 80% of the crops. The producers are not used to pay for agriculture insurance and this is partly due to lack of awareness and adequate information. In that context, a communication program was initiated in order to address the issue and promote the adoption of agricultural insurance as a kind of production factor linked to the credit system for conventional inputs. The message conveyed and backed by visual illustration of bird attacks on rice plots was in substance "it's better to be safe than sorry". Various communication tools including flyers and posters were also developed for distribution to 1 500 producers, and for posting in the offices of financial institutions. All this was completed with radios programs in local languages to reach the greatest number of producers in grassroots communities. A public billboard signage was deployed in the areas covered by the campaign during January 2014.

Television coverage on agricultural insurance: Following a successful experiment with index-based insurance, USAID/PCE encouraged the private television channel TFM to produce an independent report about this new tool for the management of rainfall related risks. In partnership with CNAAS (National Agricultural Insurance Company of Senegal) and Planet Guarantee, a private micro-insurance brokerage firm, USAID/PCE implemented a rainfall index-based insurance program for the benefit of the maize producers affiliated with FEPROMAS. The report about this experiment, which involved over 600 maize producers, aired on TFM on February 28. The production of a documentary film is planned as part of the capitalization of the project's experiments in the field of agricultural insurance.

Success Stories Films: USAID/PCE, through its rice, millet and maize value chains, implemented initiatives to increase productivity and income of small-scale producers. A consultant was hired to

interview beneficiaries to develop short films on their experience working with USAID/PCE. Ten (10) movies were produced on selected rain-fed rice, millet and maize partners in the field. They all made testimonies on how they used to work, the difficulties they faced and the improvements noticed since they get support and guidance from USAID/PCE. Each film lasts less than 5 minutes. They will be posted on USAID YouTube and Facebook accounts, and probably diffused on national and private TV channels. The series of 10 short films on the cereal value chains supported by the project were shot and included in the TERREAU series on the national television.

FIARA 2014 (*International Fair of Agriculture and Animal Resources*): The 15th edition of FIARA took place on March 5-18, 2014. This major event is first an opportunity to promote local cereals. With adequate branding, it is also provides a strong communication tool to illustrate USAID/PCE's contribution to the cereal sector. The exhibit's high visibility prompted high media coverage. It was visited twice by the Minister of Agriculture and Rural Equipment, Pape Abdoulaye Seck – once accompanied by then Prime Minister Mimi Touré, who made a declaration to the media enjoining everyone to consume Senegalese rice.

USAID/PCE DCOP Matar Gaye greets Prime Minister Mimi Toure and Minister of Agriculture and Rural Equipment Pape Abdoulaye Seck at the Village des Cereales Locales exhibit during Fiara 2014.

FIARA Conference: During FIARA 2014, USAID/PCE organized **a public conference about the pillars of food security** with a focus on the seed sector, private investment and the penetration of local rice in urban markets, which attracted widespread media coverage. Over 200 people from various backgrounds attended the conference, including the representatives of 50 media organs. High-level discussions took place, particularly on the topic of local rice competitiveness, which sparked heated debates. The event was the occasion to highlight USAID/PCE activities in the seed and rice sector. (more detail on the actual promotional exhibit is available in the Market Access and Trade section).

Promotional Caravan for « Origine Sénégal » Rice : Following the success met by the Village of Local Cereals a traveling 'Village' of local cereals designed on the same model as the FIARA Village has been set up successively in strategic locations (Pikine, Guediawaye and Dakar). A launching conference was co-chaired by MAER and the Ministry of Commerce, gathering over 150 participants, including around 30 journalists who ensured a wide media coverage of the event. One of the Caravan stops in Sicap-Liberté was the occasion of a joint exhibit with the health program destined for US Under-Secretary Mrs. Heather Higginbottom and her delegation.

Communication support for debriefing workshops: At the end of the 2013 crop year, USAID/PCE organized a series of debriefing workshops in collaboration with millet, maize and rainfed rice producer networks. Media coverage and communication are both key aspects of these annual regional events, to which the local representative of national media outlets were invited. A press release was drafted and given to media representatives. For each workshop, several articles and infomercials about USAID/PCE interventions in various value chains have been disseminated through newspapers, radio and television channels.

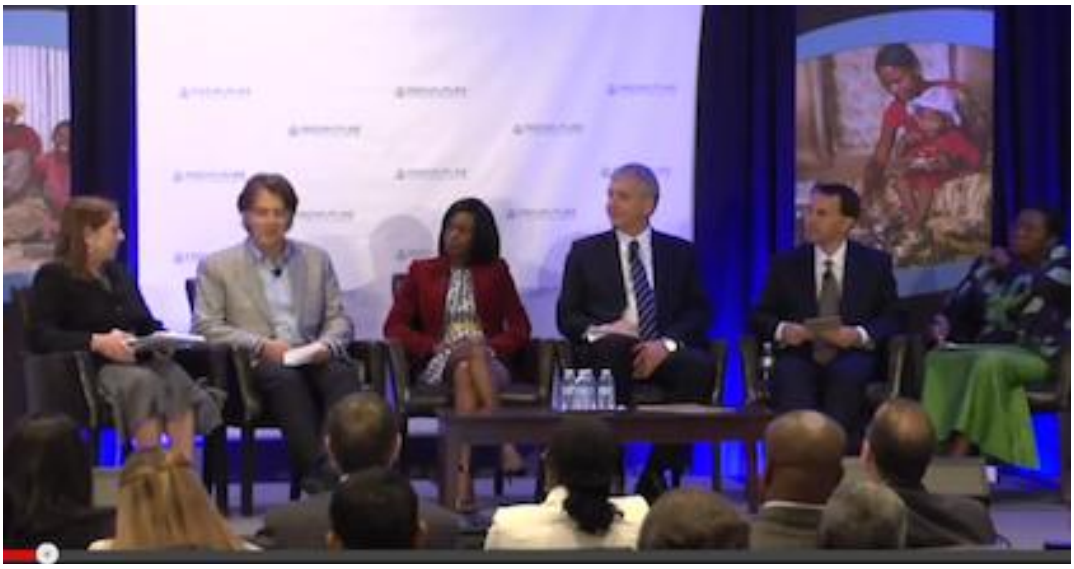
The Kolda Seed laboratory was inaugurated on March 6th by USAID Senegal Mission Director Susan Fine and Governor Mamadou Dia. This completes the USAID/PCE investments in seed testing facilities which provide seed testing facilities for the Senegal River Valley in Richard Toll, the Kaolack rainfed zone and now Kolda and the Casamance region.

CODEL visit: USAID/PCE provided the logistics for an exhibit of USAID and USDA development projects destined for a Congressional Delegation visit in August 2014 which welcomed to Senegal U.S. Senators Debbie Stabenow, Maria Cantwell, Heidi Heitkamp, and Mazie Hirono along with Deputy Secretary of Agriculture Krysta Harden and Senator Amy Klobuchar (as part of their tour of US agriculture investments in Africa.

Scaling for Innovations GLEE – Addis Ababa (Dec 2013): Project COP Jean-Michel Voisard was invited to present the rain fed rice scaling approach at the Global Learning and Evidence Exchange event which focused on scaling approach. An innovation marketplace was the occasion to present the contract farming approach developed by the project.

Cracking the Nut Conference – Kigali January 2014: FEPROMAS President, Nimna Diayte, presented on her success through adopting USAID/PCE technologies in the international Cracking the Nut conference in Kigali, Rwanda in January 2014. Nimna presented the FEPROMAS activities to the audience and fielded questions from development practitioners from across Africa. She also had a one on one discussion with Rwanda's Minister of Agriculture and Animal Resources Ms. Agnes M. who was intrigued by the FEPROMAS successes. This activity was fully funded by an Engility contribution, as the company is a regular sponsor of the event.

Global Feed the Future Conference: and VITAL rice procurement Director Daba Fall participated in the Global Feed the Future Conference held May 19th-21, 2014 in Washington DC. The project was part of a session that presented the Senegal and Bangladesh experiences to the audience as part of the opening day plenary. USAID/PCE's presentation included a presentation by Ms Fall of the VITAL rice procurement experience and was completed by a video of Anna Gaye of GIE Kissal Patim that was prepared for the occasion. A second presentation was made the following day by the COP as part of a plenary session on the Value Chain approach, jointly with the Ghana Advance COP and a DIFID consultant. The program also involved an "Innovations Marketplace" where the project's database approach was presented to conference attendees.



Ms. Daba Fall of Vital Agro-Industries and USAID/PCE's COP JM Voisard represented Senegal during the FTF Global Conference plenary session "Views from the Field: Achieving Results and Overcoming Challenges for Country-Driven Success, " moderated by Shari Berenbach, President of the African Development Foundation (far left). Other members of the panel included the representatives of the Bangladesh program and Liberia's Minister of Agriculture (far right). The full video capture of the conference can be accessed on Agrilinks.

Data 2 Action recognition prize: In August 2014, USAID/PCE's "Cloud Based Farmer Managed Database" was selected as one of the 14 finalists for the Recognition Prize for the Turning Data into Action awards organized by the U.S. Global Development Lab, supported by USAID.

Prix Alpha: USAID/PCE has been selected by the Ministry of Economy, Finance and Planning as a contender for the "Prix Alpha" which is attributed every two years to the best project implementing team. After field visits by the evaluation committee, USAID/PCE was informed that it had been selected as part of the top three finalists. The winner is to be announced at a Gala event to be held in FY15. Being part of the top three projects involves media coverage on project activities and testimonial by project beneficiaries and USAID.

Newsletter: During the fiscal year the project published two editions, in both French and English versions, of the USAID/PCE Newsletter, circulated to a large audience.

Photos uploaded on FLICKR: USAID/PCE has had many pictures taken of its activities in the value chains of irrigated rice, rainfed rice, millet and maize. These pictures feature either Project beneficiaries carrying out their activities, or the fruits of their labor. The best photos have been uploaded to FLICKR, an image-hosting website, in order to facilitate their dissemination. Engility's FLICKR page is hosting the photo database and the link will be shared with anyone expressing an interest in using or simply viewing the pictures.

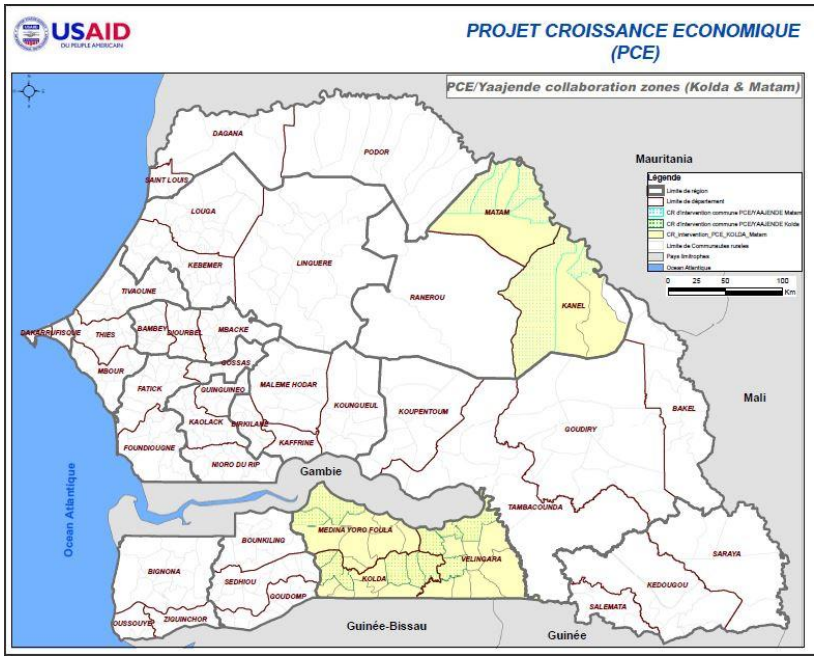
The *Village des Cereales Locales* commercial stand at FIARA 2014 was complemented by a USAID/PCE institutional exhibit, which displayed the various technologies, in particular the rain fed rice seeds and quality maize produced by project partners – who were able to book orders on the premises. From left to right: USAID/PCE COR Cheryl Bowdre, USAID Mission Director Susan Fine, USAID/EGO Director Anne Williams, DCOP Matar Gaye, Senior VC Manager El Hadj Abdou Gueye and COP JM Voisard.

5. PARTNERSHIPS AND SYNERGIES

USAID/PCE's implementation strategy relies on leveraging partnerships that favor scale, outreach, sustainability and cost efficiency. Cost share partnerships and mutual collaborative efforts are developed with a variety of private, associative, non-government and institutional partners active in the cereal value chains. The following is a summary of the partnerships which were actively pursued during FY14.

- **Implementation networks:** as described in the Value Chain and Human Capacity Building sections, a great part of the project's extension and outreach is carried out through cost shared partnerships materialized by purchase orders and grants that are matched by in-kind contributions by partner organizations. These organizations can be private firms (buyers, input dealers, processors), farmer organizations (FEPROMAS, UNIS-Nord) or NGOs (Symbiose, Caritas, AVSF). During FY14 the pool of partner networks was expanded to 69 cost share agreements in the irrigated rice, rain fed rice, maize and millet sector.
- **Locafrique:** during FY14, the project entered a cost share partnership with leasing company Locafrique to promote this financing approach, mainly in the Senegal River Valley. This took the form of a contribution to promotion activities and information workshops held throughout the Senegal River Valley.
- **BNDE (Banque National pour le Développement Economique):** this year the project has entered a partnership agreement with BNDE to help it boost its agriculture portfolio. The agreement will support business meetings in the cereal production zones with organizations interested in investing in equipment, storage and with important working capital needs.
- **CNAAS (Compagnie Nationale d'Assurance Agricole du Sénégal):** A direct partnership with CNAAS in FY14 involved the co-funding of a sensitization and information effort in the Senegal River Valley to promote rice crop insurance. In parallel, USAID/PCE and CNAAS have been collaborating through a cost share agreement managed by PlaNet Guarantee to bolster the rain index insurance program. The Senegal rain index insurance initiative is embedded in a broader Global Insurance Innovation Facility funded by WBank-International Finance Corporation (IFC-GIIF).
- **Seed processing PPPs:** The project has facilitated a PPP between the MAER and COOSEN, a Cooperative created by 36 seed multiplication firms in the SRV, for the management of the Richard Toll Seed processing unit. USAID/PCE contributed to facilitate the partnership and fully funded the infrastructure renovation and equipment acquisition as a grant to the Government of Senegal, which was then transferred under COOSEN management through a PPP agreement. Two other PPPs were signed directly between USAID/PCE and private firms for the Kolda (firm: SEDAB) and Kaolock (firm: KASEC) units.
- **ASPRODEB:** This association which is governed by farmer representative body CNCR is a long time USAID/PCE partner. During FY14 the collaboration with ASPRODEB and associate organization FPA (Fédération des Périmêtres Autogérés) has involved the facilitation of the CIRIZ restructuring. The project has also decided to outsource to ASPRODEB an update of the socio-economic profile of its beneficiaries in its four target value chains with the objective of building the organization's capacity to consolidate M&E data generated by USAID/PCE's partner rural organizations.
- **SAED & CGER:** During FY14, USAID/PCE amended its memorandum of understanding with SAED to focus it on transferring various technology packages such as "Le Chemin du Bon Riz", the quality monitoring framework and the cloud based farmer data management system. In the SRV the project also partnered with Centres de Gestion et d'Economie Rurale (CGER), a team of financial analysts managed by SAED, to improve its databases and include farmer monitoring and profiling capacities that go beyond the monitoring of seasonal loans.

- **DAPSA:** Collaboration with DAPSA focuses on improving annual agricultural statistics. During FY14, project support has been limited to granting tablets for the Agriculture survey team and supporting DAPSA's collaboration with CSE and MSU for the development of a remote sensing crop area estimation model.
- **BFPA:** Over the years, the project has supported a Value Chain oriented suite of trainings for government personnel. During FY14 the project's contribution to the program, which is principally funded by the Government, was to fund the logistics.
- **IFC – World Bank:** Over the year, the project team has been interacting with the IFC team preparing a pilot project for the promotion of Warehouse Receipts and the development of a legal framework. IFC is interested in learning from the SRV financing model and USAID/PCE has shared extensive data and experience with IFC consultant and during project preparation public workshops.
- **Millennium Challenge:** USAID/PCE has sought to dovetail its program in the SRV with the completion of the Ngalenka rice irrigation scheme completion this year. Farmers in the perimeters are included in the FEGINA training program which involves demonstration sites, field trainings and linkage with local processors governed by the paddy rice quality norms.
- **USAID-ERA:** This year the project was approached by USAID/ERA as the latter engaged ENSA for the pursuit of the Agribusiness Masters program. Program inception and course content documents were shared and the project COP made a presentation on contract farming at an academic training seminar. ERA sponsored research students are interested in using USAID/PCE databases for their final research papers. In another area, USAID/PCE has shared with ERA the technical content and partner databases to orient its capacity building efforts in the seed sector.
- **USAID/Yaajeende:** During FY14 USAID/PCE and USAID/Yaajeende undertook targeted collaborations in the Matam and Kolda areas in selected rural communities (see map). This comes as an effort to effectively layer both approaches to maximize impact at the farmer community level and provide growth opportunities and access to promising technologies. Both projects have shared approaches in best agriculture practices, quality management trainings, database management, OCAT based organizational assessments, and the CBSP model. The USAID/Yaajeende team shares the USAID/PCE office in Kolda and USAID/PCE's value chain specialist is based at the USAID/Yaajeende Matam office.



6. ENVIRONMENTAL MITIGATION AND MONITORING (EMMP)

Many of the USAID/PCE activities were determined to be **"categorical exclusions,"** which by definition, are not supposed to have an adverse impact on the environment or on the local population. These activities, which are key to ensuring a lasting impact in the food security/ agriculture sector, include studies, research, policy dialogue and reform, capacity building and institutional strengthening. As such, they can and are proceeding without direct compliance measures.

However, in preparing the amendment to the SO 11 IEE, USAID issued a **"negative determination with conditions"** per 22CFR216.3(a)(2)(iii) for the following activities linked to the GFSR/FTF, and thus to the USAID/PCE scope of work under Task Order 5:

- Irrigation and support to increased efficiency in existing irrigated areas
- Support to improved rainfed agricultural practices
- The multiplication and distribution of seeds of staple food crops
- The increased use of organic and inorganic fertilizer
- Improving farm to market roads
- Construction of food storage warehouses and cold storage facilities
- Activities supporting the development of entrepreneurial capabilities and/or small- to medium-scale enterprise developments for the private sector and farmer associations.

Furthermore, the amended IEE included the following conditions for these activities:

- Although expansion **within the boundaries of the existing irrigated schemes** is allowable, no expansion on to new sites and in particular, on undeveloped wetlands, can be undertaken as this would change the determination to a positive one (22CFR216.2(d)(ii) and would therefore require carrying out an environmental assessment (EA).
- This determination specifically excludes seeds resulting from the genetic modification of living organisms (**GMOs**).
- Promoting and/or procuring **fertilizers** will be done in conjunction with the guidance available in the Africa Bureau Fertilizer Information Sheet.
- No funds may be expended on **pesticide procurement or use**, until after an amendment to this IEE is approved that addresses the pesticide procedures outlined under 22 CFR 216.3(b) and a PERSUAP is completed and approved by the Mission Environmental Officer (MEO) and the Africa Bureau Environmental Officer (BEO).
- **Construction activities** will be conducted following environmentally sound practices presented in USAID's *Environmental Guidelines for Small-Scale Activities in Africa*, (Chapters 3 and 16). Prior to constructing facilities in which the total disturbed surface area exceeds 10,000 square feet, if any, the program will conduct a supplemental environmental review according to guidelines in the *Africa Bureau Environmental Procedures Training Manual* (Annex G). Construction may not begin until such a review is completed and approved by the REO.

Based on these determinations, in 2010, IRG prepared and submitted to USAID an Environmental Mitigation and Monitoring Plan as well as a Pesticide Evaluation Report and Safe User Action Plan (PERSUAP). USAID subsequently approved the EMMP and PERSUAP and the project team actively applies the measures identified in those documents. The following table outlines issues and actions undertaken as necessary for USAID/PCE in FY14.

ENVIRONMENTAL MITIGATION AND MONITORING		
Planned Action	**Activities Undertaken in FY14**	**Observations/Comments**
Small-scale irrigation		
Project sponsored trainings to irrigated rice producers are consistent with the irrigation guidelines set forth by SAED. USAID/PCE will continue to monitor the performance of rehabilitated research fields to ensure the installed equipment properly regulates water flow and associated drainage	As part of the close-out process, USAID/PCE will make a final assessment of the investments undertaken in FY12 at ISRA's research stations in Fanaye and Nioro where irrigation equipment for seed breeding plots was replaced.	USAID/PCE does not engage in the development of irrigation schemes for small holder farmers. Rather, the project collaborates with smallholders and other farmers involved in public irrigations schemes in the Senegal River Valley that are monitored by SAED (which has been mandated by the Government of Senegal to oversee the irrigation network's management and expansion according to environmental norms).
Genetically modified organisms		
The project will ensure that seed controller guidelines and training guides are in conformity with the ECOWAS seed framework.	The sourcing of seed material for the 2014 cropping season was fully compliant with the ECOWAS framework and official guidelines.	USAID/PCE does not introduce or promote GMOs. The project works to improve farmer access to non-GMO certified seeds of productive varieties of cereals that are adapted to Senegal's climate. Specifically, the project supports Senegal's seed sector in the multiplication and distribution of improved rice, maize and millet varieties that have been duly approved by the national research body ISRA, in accordance with the national seed legislation. Foundation seeds for in-country multiplication by seed producers may also be sourced from out of Senegal suppliers such as the AfricaRice network for NERICA seeds, which is now an accepted practice per the ECOWAS seed framework endorsed by Senegal. USAID/PCE's maize program has involved the sourcing by farmer networks of maize hybrids imported through government certified channels.
Fertilizer		
Training documentation disseminated by value chain network agents through field days, demonstrations and close-out communications supports national fertilizer use guidelines.	USAID/PCE provided support to the National Fertilizer Committee for the dissemination of ECOWAS texts on fertilizer quality control and for field supervisory missions to monitor the distribution of Government subsidized fertilizer across the country.	USAID/PCE supports value chain networks where lead consolidators provide fertilizer sourcing, distribution and financing services to a wide base of farmers. The network procurement plans, distribution to farmers and field application of fertilizer are performed according to the guidelines set by ISRA and conveyed by the extension agency ANCAR for the soil types found in the various ecological zones.
Small-scale construction		
When participating in the costs for small-scale construction, USAID/PCE will recruit a third-party project monitoring consultant who will be responsible for the identification and oversight of environmental risk mitigation measures as required by USAID guidelines and defined in the EMMP.	In FY14, USAID/PCE supported the construction of seed treatment facilities in Kolda for a total disturbed area of 479 m^2 or 5,155 f^2. USAID/PCE contracted a third-party consultant to monitor activities.	USAID/PCE was indirectly involved in small-scale construction of the Kolda seed treatment center, providing equipment and technical assistance but not managing construction of the center itself.

Pesticides		
Review and update as needed of existing and projected training tools (documents, posters, radio broadcast content, videos and slideshows) to incorporate the development of IPM skills such as good field sanitation and surveillance, use of certified seeds free of weeds, manual weeding, conservation farming, mulching, fertilizing, good water and soil management.	USAID/PCE has continued to iteratively update training materials as needed and appropriate. Conservation farming techniques promoted by USAID/PCE are focused on low tillage methods and guidelines that are provided to farmers through trainings.	
Assurance that any pesticides recommended in training programs and promoted through production programs will reflect the approved pesticide list established by USAID/PCE's PERSUAP.	Pesticides and herbicides are not included in the technological packages promoted by the USAID/PCE.	
Ensuring training plan covers best practices in the safe usage of pesticides during storage of cereals as well as safe field application techniques and the use of adequate protection by farmers, in particular at demonstration sites supported by the project.		

7. PROJECT MANAGEMENT

Initial Closeout procedures: SAGIC Task Order 5 began in April 2009 and its closing date, initially set to November 30, 2013, was first extended to May 30, 2014 so the project could provide uninterrupted support to its beneficiaries during the 2013 rain season (June-March). The initial FY14 work plan included actions leading to project close out in May 2014 and a close out plan was produced by IRG in November 2013.

In February 2014, USAID confirmed to IRG its interest in extending the period of performance of the task order until the end of May 2015. A request for budget realignment and no-cost extension was submitted by IRG to USAID on March 21st 2014 and corresponding Modification of Contract no. 17 was approved May 9th, 2014.

The FY14 Work Plan initially submitted by IRG in September 2013 was centered on the completion of work initiated during the previous fiscal year as well as a series of capitalization and handover activities in the perspective of a full project closeout by May 2014. The present extension of the program made it necessary to update the FY14 work plan initially submitted to include new activities that are aligned with USAID priorities.

Specific tasks to be carried out during close-out included the following and were adjusted to the circumstances of a one year extension:

- **Personnel:** A demobilization plan for project staff was prepared. The plan was focused on making arrangements for any repatriation including any necessary HHE shipments, TQSA, etc., reviewing compensation packages based on Senegalese labor laws, and preparing letters of recommendation for all departing staff. Following the decision to extend, the demobilization plan was modified. Ongoing local personnel contracts were severed and replaced by short-term contracts until the closure of the initial contract period ending May 30th 2014. Once the extension request was accepted, local employees were re-hired under a fixed term employment agreement in accordance with Senegalese labor laws for durations compatible with their tasks under the extension program.

- **Inventory:** Administration revised and updated the current inventory assessment, finalized the inventories (calculate and incorporate depreciation, separate greater than and less than $500 item). Following the decision to extend, surplus equipment has been identified and earmarked for disposal, as well as broken equipment which it is not economical to repair. This is to take place during Q1 FY15.

- **Financials:** Closeout contracts with landlord were prepared but readjusted to account for the extended duration. Notices initially sent were repealed and notifications of extension were made for project offices once approval of the no-cost extension was communicated to IRG/Engility.

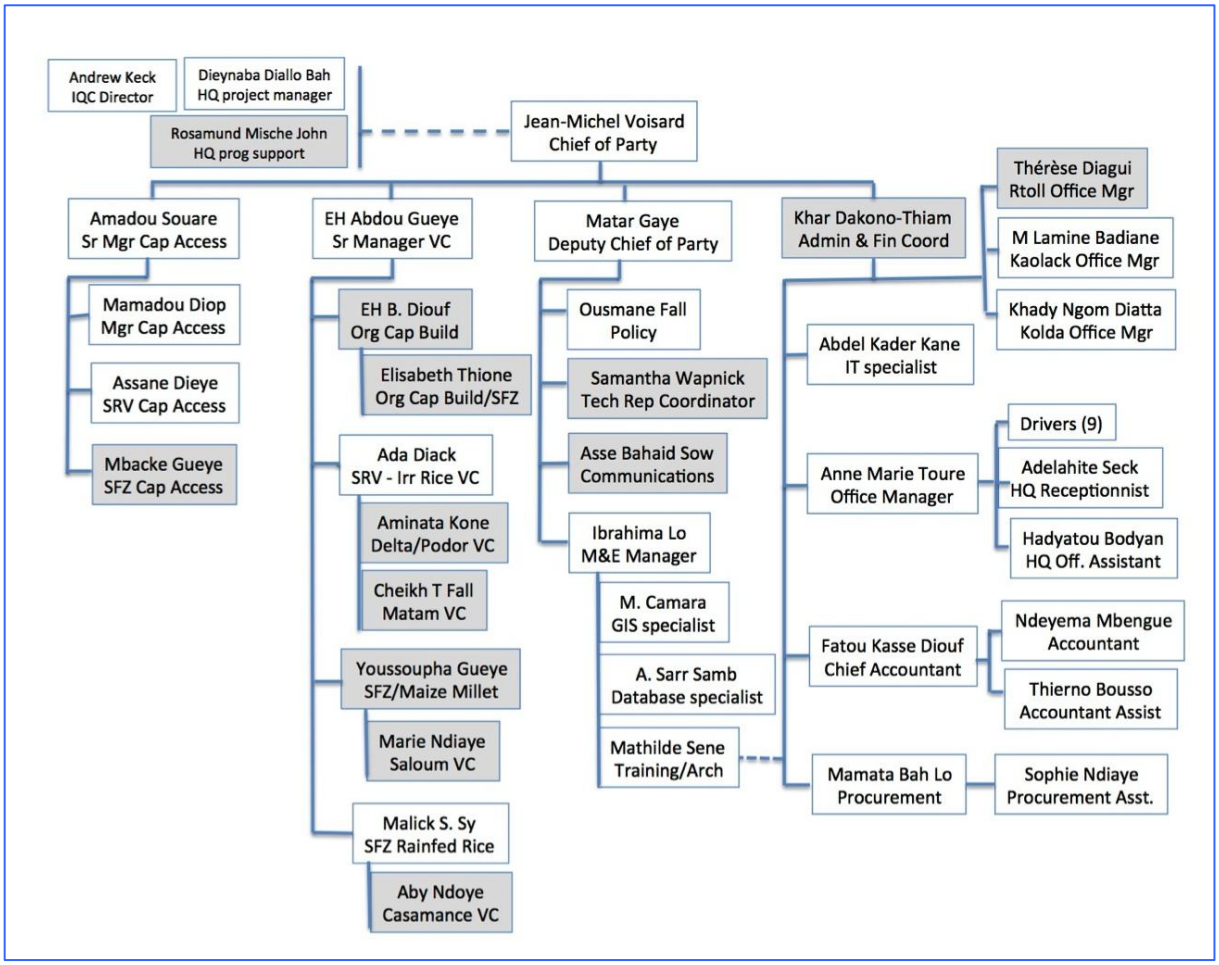
Extension period staffing plan: the extension period staffing plan is reflected in the following organigram and includes the following:

- Project COP Jean-Michel Voisard's presence will be extended until the new close-out date set for May 29th 2015.
- Financial and Administration Senior Manager Dieynaba Diallo-Bah, who returned to IRG/Engility head office in December 2013, pursues her head office project manager

role. Field office Financial and Administration Manager Khar Dakono will remain in post until project closeout.

- A new Technical Coordinator position has been created and took post as of October 1, 2014. This position's role is to assist the COP in project management functions and to take charge of the knowledge management and best practice documentation and communication activities of this final year.
- Expansion of field activities required additional field managers: one in SRV to cover the Matam zone, in Kaolack to cover the maize, upland rice and millet value chain expansion, in Kolda (Casamance) to cover the expansion of rain fed rice and maize.
- The MSU team will pursue short term technical assistance to DAPSA for the improvement of the agricultural statistics.

USAID/PCE Organizational chart



8. MONITORING & EVALUATION (M&E)

Context and thematic priorities for FY14

In FY14, IRG updated and submitted to USAID an updated project Performance Management Plan. The update focused on adjustments to targets for selected indicators, the removal of one indicator about post-harvest losses, and the replacement of an indicator on institutional capacity building. The revisions to the indicator list reflect adjustments made at the global level for FTF indicators, thus ensuring that the project stays in line with the priority metrics for FTF. The PMP update process also served to revisit with technical staff our indicator definitions as well as indicator data quality and collection standards.

Project indicators and targets

Table 22 presents the FY14 targets for the updated list of USAID/PCE indicators adjusted to comply with BFS guidelines concerning crop seasons saddling two fiscal years. The current data includes production, adoption and marketing figures for the 2013 rain season even though fields were sown in FY13.

Three sets of figures are presented for FY14 extension work plan:

- *the initial FY14 work plan targets calculated using the rules of the current PMP (FY13 revision);*
- *a modified version of initial FY14 work plan targets to reflect the new FTFMS guidelines which require the alignment of the timing of technology adoption figures with income and gross margin indicators;*
- *and finally the adjusted indicators which count the results of the extension period activities*

Currently the Feed the Future Monitoring System (FTFMS) targets for FY14 reflect pre-extension figures. Their update will need FTFMS prior approval per the established procedure. Otherwise reported actual indicator figures for FY14 will in several cases significantly exceed FTFMS figures. These indicators are still limited to the capture of results for the 2013 rain season production and marketing cycles as per BFS guidelines pertaining to crop seasons saddling two financial years. The results for rain season 2014 in terms of sales, gross margin and technology adoption will be captured in the FY15 reporting cycle.

FY14 Activities

Capacity building for partners: The PCE M&E team held database analysis training workshops for producer network facilitators. Training course topics included data collection and mapping tools with a focus on datasheets, GPS, Mapsource, Pivot Tables and Dropbox. The group of nine M&E field agents provided assistance to network partners for collection and processing of data on production and yields to inform seasonal debriefing sessions.

Season Debriefing Workshops: A 2-day workshop on the rain-fed rice season was held in March. Key achievements noted include coverage extended to 6 regions, 71 rural communities, and about 640 villages for a total of 10,640 producers of whom 52% were women. Regarding the dissemination of new technologies, 311 demonstration sites have been set up and used to train 8,900 producers in good practices. For irrigated rice, the Producers cooperatives of Matam and Podor conducted local debriefing workshops focusing on 'Chemin du Bon Riz' or the path of good quality rice. Afterwards,

all the rice actors in the Northern zone beyond PCE partners held a global forum lead by SAED on the rice quality control code in connection with the idea of sliding scale pricing of paddy.

Installation of rainfall gauges: A set of 217 manual rainfall gauges were put in place throughout partner networks in non irrigated zones. The weekly transmission and analysis of rainfall data informed and ultimately improved the accuracy of farming operations, yield profiling and the index insurance. Training sessions were held on the installation, utilization and maintenance of rain gauges and a user's guide was made available to network database managers. Regional Directorates of Agriculture expressed high interest in getting the data for their seasonal monitoring needs.

CommCare application: This ICT-based method was experimented with the Union of Local Cereal Producers of Thiaré, in the Kaolack region. It allows real time transfer of production monitoring data and on the movements of stocks and quality control results in output consolidation points. Collaboration is under way with Dimagi for consolidating the experience and expanding it to irrigated rice and maize.

Data Quality Assessment: The process conducted in collaboration with the USAID M&E team in June 2013 has been completed. The main recommendation made was to match seasonal agricultural data with the financial reporting year to address the time overlap issue and maintain coherence of some indicators.

Archiving project documents: Archive files have been reorganized and selected documents uploaded to the DEC platform.

Geographical coverage assessment: To guide the scale-up process, an assessment of geographical coverage was conducted in the southern zone, based on official population statistics and the number of households and villages covered by PCE. The results that have been mapped show three groups of zones: the first having a high potential for geographical expansion, the second having a high potential for internal growth, and the third having a relatively adequate coverage rate.

Socioeconomic profiling studies: In collaboration with ASPRODEB, household profiling studies have been conducted on a sample of 560 households in irrigated rice, rain-fed rice, millet and maize. The main goal was to assess 1) extent of the direct and indirect effects of project interventions, especially on the most disadvantaged populations and 2) the diffusion process of best practices. The four sectoral reports have been finalized, and an English version and a consolidated short version have been produced.

Table 22. FY14 TO5 Indicator Table

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
1	**Gross margin per unit of land or animal of selected product [4.5(16,17,18)]**	USD/ ha									For rain fed crops (Rain fed rice, Maize and Millet) calculations of gross margins are based on rain season 2013/2014 data. For Irrigated rice it is calculated based on both the 2013/14 rainy season and the 2014 Dry Season. **Rain fed rice, maize and millet:** the performance is explained mainly by adequate rainfall in 2013/14 bringing yields for certified seed back to normal. In addition, when available, the use of fertilizers, mechanized seeding and land preparation improved productivity. In the case of maize, high commodity prices were maintained and farmers adopted proper spacing which generated an increase in gross margin. **Irrigated Rice:** the drop in gross margin reflects the low yields obtained in rain season 2013 where sowings were delayed and several focused their efforts on the following dry season in order to maximize yields.
	Irrigated Rice GM		**562**	**629**	**732**	**668**	850	850	79%	79%	
	- Area (Ha)		14,350	16,286	10,141	*15,447*					
	- Production (Tons)		73,474	88,953	59,374	*97,220*					
	- Quantity sold (Tons)		30,537	62,267	42,867	*54,303*					
	- Value of sales (USD)		7,328,880	17,551,051	11,341,407	*13,401,506*					
	- Purchased input cost (USD)		9,570,620	14,300,664	8,284,584	*13,674,815*					
	Rain fed Rice GM		**592**	**58**	**474**	**504**	510	510	99%	99%	
	- Area (Ha)		60	2,010	4,127	*4,447*					
	- Production (Tons)		114	1,170	7,492	*8,458*					
	- Quantity sold (Tons)		30	72	411	*315*					
	- Value of sales (USD)		13,801	63,694	181,744	*117,881*					
	- Purchased input cost (USD)		17,656	433,417	1,356,555	*923,432*					
	Maize GM		**522**	**371**	**466**	**543**	556	556	98%	98%	
	- Area (Ha)		3,270	5,412	3,906	8,708					
	- Production (Tons)		8,442	13,475	7,719	25,014					
	- Quantity sold (Tons)		5,782	9,028	5,904	13,576					
	- Value of sales (USD)		1,622,988	3,192,883	2,177,120	4,363,963					
	- Purchased input cost (USD)		664,572	2,105,188	1,024,647	3,313,979					
	Millet GM		**173**	**124**	**179**	**200**	218	218	92%	92%	
	- Area (Ha)		1,439	2,268	1,947	*2,375*					
	- Production (Tons)		968	2,081	1,598	*2,283*					
	- Quantity sold (Tons)		323	1,387	959	*1,370*					
	- Value of sales (USD)		114,726	588,809	341,230	*464,307*					
	- Purchased input cost (USD)		95,933	603,241	220,819	*298,457*					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
2	**Number of individuals who have received USG supported long-term agricultural sector productivity or food security training [4.5.2(6)]**	No.	**14**	**14**	**14**						ENSA Master's Program is transferred to USAID/ERA
	Male		10	10	10						
	Female		4	4	4						
	Producers		0	0	0						
	Processors		0	0	0						
	Researchers		0	0	0						
	Policy Makers		0	0	0						
	Students		14	14	14						
	Others		0	0	0						
	New		14	0	0						
	Continuing		0	14	14						
3	**Number of individuals who have received USG supported short-term agricultural sector productivity or food security training [4.5.2(7)]**	No.	**22,328**	**17,627**	**38,881**	**38,805**	9,000	41,500	431%	94%	Shortfall is caused by postponement of rice quality control trainings for RS 2014 to FY15 and low performance of some maize networks. Training during the 2014 fiscal year covered the following topics : • Quality Compliance (6 716) • Best practices for maize production (10 486) • Good Practices in Rainfed Rice farming (16 014) • Monitoring and Mapping (329) • Post harvest Operations Rice (4 609) • Path of Good Rice (5 220) • Best practices for millet production (1 299)
	Male		18,595	12,016	27,939	25,387	7,650	26,500	332%	96%	
	Female		3,733	5,611	10,942	13,418	1,350	15,000	994%	89%	
	Producers			17,306	38,743	38,710					
	People in Government			198	126	51					
	People in Private sector firms			30	12	44					
	People in Civil society			82	0	0					
	Others			0	0	0					
	New			13,042	23,704	23,241					
	Continuing			4,585	15,177	15,564					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
4	**Number of farmers and others who have applied new technologies or management practices as a result of USG assistance [4.5.2(5)]**	**No.**	**19,973**	**26,035**	**25,486**	**26,524**	22,000	31,000	121%	86%	Adoption figures are inferior to that expected as the irrigated rice purchases by VITAL and underwritten by CNCAS are considered indirect adoptions for the lack of a PO agreement. This represents approximately 5,000 farmers.
	Male			21,481	22,960	20,406					
	Female			4,554	2,526	6,118					
	New			16,425	12,252	12,633					
	Continuing			961	13,234	13,891					
5	**Number of private enterprises, producers organizations, water users associations, women's groups, trade and business associations and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance [4.5.2(42)]**	**No.**	**1,581**	**978**	**1,453**	**1,595**	1,200	1,200	133%	133%	The scale-up of activities in the Podor and Matam zones as well as the extension of the rain fed rice networks beyond initial objectives account of this performance.
	Private enterprises			6	5	2					
	Producers organizations			637	1,368	1484					
	Trade and business associations			0	41	49					
	Women's groups			15	39	0					
	Community-based organizations			193	0	60					
	Others			0	0	0					
	New			393	695	477					
	Continuing			585	758	1,118					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
6	**Number of members of producer organizations and community based organizations receiving USG assistance [4.5.2(27)]**	**No.**	**36,141**	**33,725**	**44,775**	**48,227**	25,000	41,500	193%	116%	This is due to the inclusion of farmer organizations with high membership such as AKNB in the Matam zone. The 2014-15 training program for that association only covers a portion of that organization's membership.
	Male			25,224	33,222	32,582					
	Female			8,501	11,533	15,645					
	Producers Organizations			26,968	44,775	48,227					
	Community based organizations			6,757	0	0					
7	**Number of food security private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG assistance[4.5.2(11)]**	No.	**1,698**	**1,543**	**1,775**	**1,615**	1,100	1,100	147%	147%	The scale-up of activities in the Podor and Matam zones as well as the extension of the rain fed rice networks beyond initial objectives account of this performance.
	Private enterprises			16	10	2					
	Producers Organizations			1,141	1,660	1,484					
	Water user associations			0	0	69					
	Trade and Business Associations			157	41	0					
	Women's groups			39	39	60					
	Community based organizations			166	3	0					
	Others			24	22	0					
	New			315	699	497					
	Continuing			512	1,076	1,118					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
8	**Number of stakeholders implementing risk-reducing practices/actions to improve resilience to climate change as a result of USG assistance [4.5.2(34)]**	No.		**24,664**	**25,486**	**26,524**	22,000	31,000	121%	**86%**	We have not counted the number of individual farmers adopting crop insurance in the SRV because disaggregated data is not available.
	Male			20,477	22,960	20,406					
	Female			4,187	2,526	6,118					
	Agriculture			24,664	25,486	26,524					
	Water Health			0	0	0					
	Disaster Risk Management			0	0	0					
	Urban			0	0	0					
9	**Number of hectares under improved technologies or management practices as a result of USG assistance[4.5.2(2)]**	Ha	**11,592**	**19,375**	**18,016**	**30,154**	18,000	31,900	168%	95%	Lower than expected direct adopters reported by partner networks in the maize sector.
	Rice		4,723	13,435	12,163	19,071		18,500		103%	
	Irrigated Rice (ha)			11,681	10,141	15,447		15,000		103%	
	Upland Rice (ha)			1,754	2,022	3,624		3,500		104%	
	Maize (ha)		5,465	3,873	3,906	8,708		11,000		79%	
	Millet (ha)		1,404	2,067	1,947	2,375		2,400		99%	
	New and Improved Seeds				3,763	3,624					
	Contractualization				15,994	26,530					
	Cartography and GPS				5,415	5,677					
	New				11,190	12,138					
	Continuing				6,826	18,016					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
10	**Number of technologies or management practices in one of the following phases of development[4.5.2(39)]**	No.	**23**	**36**	**27**	**16**	2	10	800%	160%	The number of seed varieties included in the rain fed program was augmented to reflect available non-Nerica low land varieties available at ISRA and requested by farmers.
	in Phase I: under research as a result of USG assistance			2	0	0	0	0			
	in Phase II: under field testing as a result of USG assistance			0	0	0	0	0			
	in Phase III: made available for transfer as a result of USG assistance			34	27	16	2	10	800%	160%	
11	**Number of rural households benefiting directly from USG interventions [4.5.2(13)]**	No.	**36,141**	**33,725**	**44,775**	**43,617**	25,000	41,500	174%	**105%**	Includes the combined effect of trainings and access to credit.
	New			19,564	27,969	22,051					
	Continuing			13,676	16,786	21,566					
	Adult female no Male			0	0						
	Adult Male no Adult female			0	0						
	Male and Female Adults			33,725	44,775	43,617					
	Child no Adults			0	0	0					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
12	**Numbers of Policies/Regulations/ Administrative Procedures in each of the following stages of development as a result of USG assistance in each case :[4.5.2(24)]**	No.	**68**	**20**	**14**	**20**	22	24	91%	83%	See Policy section interventions + Richard Toll PPP arrangement
	Stage 1: Analyzed		38	8	8	8	3	5	267%	160%	
	Stage 2: Drafted and presented for public/stakeholder consultation		30	6	2	5	3	3	167%	167%	
	Stage 3: Presented for legislation/decree		0	2	3	2	6	6	33%	33%	
	Stage 4: Passed/approved		0	2	1	0	6	6	0%	0%	
	Stage 5: Passed for which implementation has begun		0	2	0	5	4	4	125%	125%	
	Inputs			4	0	4					
	Outputs			0	0	1					
	Macroeconomic			0	0	0					
	Agricultural sector wide			16	14	12					
	Research extension			0	0	0					
	Information and other public sector			0	0	0					
	Food security			0	0	2					
	Climate change adaptation			0	0	1					
13b	**Score, in percent, of combined key areas of organization capacity amongst USG direct and indirect local implementing partners.**	%		**38%**	**55%**	-	-	-	-	-	Program to resume briefly during FY15. No indicator included.

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
14	**Value of incremental sales (collected at farm-level) attributed to FTF implementation[4.5.2(23)]**	USD	**3,100,834**	**28,371,716**	**21,698,746**	**18,347,657**	13,580,000	23,730,000	135%	77%	Lower farm gate sales because VITAL network not considered a direct beneficiary for lack of formal agreement with USAID/PCE. Purchases of 20,000 tons considered indirect.
	Millet										
	Volume	Ton		1,387	959	1,370	3,000	3,000	46%	46%	
	Value	USD	48,788	588,809	341,230	464,307	800,000	700,000	58%	66%	
	Maize										
	Volume	Ton		9,028	5,904	13,576	10,000	18,000	136%	75%	
	Value	USD	1,461,174	3,192,883	2,177,120	4,363,963	2,500,000	5,000,000	175%	87%	
	Upland Rice										
	Volume	Ton		72	411	315	1,000	1,000	32%	32%	
	Value	USD	13,801	42,038	181,774	117,881	280,000	280,000	42%	42%	
	Irrigated Rice										
	Volume	Ton		87,868	72,577	54,303	40,000	72,000	136%	75%	
	Value	USD	1,577,071	24,547,986	18,998,623	13,401,506	10,000,000	17,750,000	134%	76%	
15	**Value of Agricultural and Rural Loans [4.5.2(29)]**	USD	**13,820,000**	**16,135,170**	**18,814,858**	**16,376,096**	2,000,000	10,000,000	819%	164%	Reduction of the value vs. FY2013 caused by the reduction of the VITAL loan facility replaced by a revolving fund loan covering on month requirements.
	Producers				18,814,858	16,376,096					
	Local Traders/Assemblers										
	Wholesalers/ Processors										
	Others										
	Male										
	Female										
	Joint				18,814,858	16,376,096					
	n/a										

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
16	**Number of MSMEs, including farmers, receiving USG assistance to access loans[4.5.2(30)]**	N°.	**6,669**	**11,638**	**14,588**	**13,010**	4,500	15,000	289%	87%	A large proportion of SRV farmers entering the CNCAS integrated loan facility considered indirect beneficiaries as USAID/PCE does not have a direct PO with Delta organizations in FY 14.
	Micro			11,638	14,581	13007					
	Small				5	3					
	Middle				2	0					
	Agricultural Producer				14,588	13010					
	Input Supplier				0	0					
	Trader				0	0					
	Processor				0	0					
	Non-Agriculture				0	0					
	Other				0	0					
	Male				12,803	11,229					
	Female				1,785	1,781					
	Joint										
	n/a										
	New				2,950	1272					
	Continuing				11,638	11,738					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
17	**Number of MSMEs, including farmers, receiving business development services from USG assisted sources [4.5.2(37)]**	No.	**36,141**	**33,736**	**44,782**	**48,233**	25,000	41,500	193%	116%	This is due to the inclusion of farmer organizations with high membership such as AKNB in the Matam zone. The 2014-15 training program for that association only covers a portion of that organization's membership.
	Micro			33,736	44,775	48,227					
	Small			10	5	4					
	Middle			0	2	2					
	Agricultural Producer			33,726	39,574	48,227					
	Input Supplier			2	4	1					
	Trader			5	0	5					
	Processor			0	0	0					
	Non-Agriculture			0	0	0					
	Other			0	0	0					
	Male			25,235	33,229	32,588					
	Female			8,501	11,553	15,645					
	Joint			0	0	0					
	n/a			0	0	0					
	New			19,907	27,969	26,201					
	Continuing			13,718	16,813	22,032					
18	**Amount of private financing mobilized with DCA Guarantee**	USD	**11,100,000**	**6,226,414**	**3,304,057**	-	-	-	-	-	Leasing DCA data not available.
19	**Number of trainings of MFI and bank personnel related to agricultural lending**	No.	**6**	**7**	**6**	**3**		3	-	100%	Caused by a delay in developing adequate training guides and the decision to launch trainings starting October. At time of reporting trainings are ongoing at the level of four partner institutions.

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
20	**Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation[4.5.2(38)]**	USD	**1,717,081**	**2,286,000**	**3,111,774**	**3,833,335**	480,000	2,000,000	799%	192%	Leasing results exceeded expectations as farmers decided not to wait for Government subsidized equipment program which is yet to materialize.
21	**Number of public-private partnerships formed as a result of FTF assistance [4.5.2(12)]**	No.	**25**	**31**	**86**	**78**	10	50	780%	156%	This figure was augmented as the project expanded its partnerships to financial institutions and to water Unions in the upper SRV as well as new maize and rain fed rice networks as part of the scale up plan for 2014-15.
	Agriculture Production			31	86	67					
	Post Harvest Transformation			0	0	0					
	Others			0	0	0					
	Multifocus			0	0	11					
22	**Number of business-to-business partnerships developed**	No.	**1,292**	**5,154**	**2,195**	**1,319**	-	1,200	-	110%	Program excludes VITAL contracts.
	Agriculture Production			5,146	2,195	1,319					
	Post Harvest Transformation			3	0	0					
	Others			5	0	0					
	Multifocus			0	0	0					
23	**Number of jobs attributed to FTF implementation [4.5.2(2)]**	FTEs	**4,034**	**7,298**	**4,713**	**8,258**	2,000	7,000	413%	118%	Jobs from rain season 2013 were planned in FY13 but will be counted in FY14 to align figures with corresponding sales as per new FTFMS recommendation.
	Male			7,292	4,713	8,258					
	Female			6	0	0					
	New			7,274	4,713	3,545					
	Continuing			24	0	4,713					
	Location: Urban			6	0	0					
	Location: Rural			7,292	4,713	8,258					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
24	**Volume and Value of production processed and sold**	Ton	**36,671**	**68,634**	**49,547**	**67,829**	-	89,700	-	76%	A significant portion of VITAL sales is considered indirect and are not included.
		USD	**9,080,395**	**32,644,974**	**26,959,860**	**23,385,761**	-	26,900,000	-	87%	
	Millet										
	Volume	Ton	323	1,387	959	696	-	1,000	-	70%	
	Value	USD	114,726	588,809	401,009	279,429	-	300,000	-	93%	
	Maize										
	Volume	Ton	5,782	9,028	5,904	13,576	-	18,000	-	75%	
	Value	USD	1,622,988	3,536,889	3,112,031	5,244,605	-	5,400,000	-	97%	
	Rice										
	Volume	Ton	30,567	1,935	42,684	53,557	-	70,700	-	76%	
	Value	USD	7,342,681	12,212,853	23,446,820	17,861,727	-	21,200,000	-	84%	
	Upland Rice										
	Volume	Ton		72	394	315	-	500	-	63%	
	Value	USD		42,038	278,373	227,320	-	200,000	-	114%	
	Irrigated Rice										
	Volume	Ton		58,171	42,290	53,242	-	70,200	-	76%	
	Value	USD		28,844,161	23,168,447	17,634,407	-	21,000,000	-	84%	
25	**Quantity of foundation seed produced**	Ton	**14**	**61**	**376**	**348**	-	150	-	232%	The surge in foundation seed production is a defensive reaction by seed growers against ISRA shortages, as well as a reaction to an increase in demand for certified seed.
	Millet			23	4	34					
	Maize			20	147	144					
	Upland Rice			0	0,4	3					
	Irrigated Rice			18	225	167					
26	**Quantity of certified seeds produced by public and private sectors**	Ton	**1,939**	**3,828**	**3,360**	**4,189**	-	3,000	-	140%	Maize certified seed production exceeded expectations.
	Millet			1	18	0					
	Maize			274	643	1,511					
	Upland Rice			22	460	490					
	Irrigated Rice			3,531	2,239	2,188					

N°	INDICATOR TITLE	UNIT	RESULTS				TARGETS FY14		PERFORMANCE FY14		COMMENTS
			FY 11	FY 12	FY 13	FY 14	FTFMS	PCE Ext.	FTFMS	PCE Ext.	
27	**Number of people with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance**	No.		**17,308**	**38,315**	**33,019**	-	31,000	-	107%	Producers trained on good agricultural practices and conservation farming
	Male			11,747	25,134	21,095					
	Female			5,561	13,181	11,924					
28	**Number of climate mitigation and/or adaptation tools, technologies and methodologies developed, tested and/or adopted as a result of USG assistance**	No.	-	**6**	**16**	**16**	-	10	-	160%	The number of varieties of rain fed rice for lowland farming included non-Nerica varieties recommended by the farmers and available at ISRA Djibelor.

9. ANNEXES

ANNEX 1– Success Stories

ANNEX 2 – USAID/PCE Direct Training List

ANNEX 3 –Reports and Deliverables*

ANNEX 4 – Consultancies*

***available upon request: projectcroissanceeconomique@gmail.com**

ANNEX 1– Success Stories

1. **FEPROMAS TIPS THE GENDER BALANCE OF MAIZE PRODUCTION IN THE SALOUM**
2. **FARMERS IN PAOSKOTO REVOLUTIONIZE THE CULTIVATION OF MILLET, TRIPLE YIELDS AND COPE WITH RISKS USING RAIN INDEX INSURANCE**
3. **PUBLIC PRIVATE PARTNERSHIP (PPP) FOR AN EFFICIENT AND SUSTAINABLE IRRIGATED RICE SEED SYSTEM IN SENEGAL**
4. **WOMEN OF DAGANA FIND THEIR WAY IN THE IRRIGATED RICE VALUE CHAIN**

SUCCESS STORY

FEPROMAS TIPS THE GENDER BALANCE OF MAIZE PRODUCTION IN THE SALOUM

Nimna Diayaté, president of the FEPROMAS maize producers federation, welcomes Ramata Niasse, head of the maize producer network of Taïba Niassène, and her colleague. The two groups joined forces for contract farming in the 2014 season.

The maize producer network of "Taïba Niassène" in the Kaolack region was founded in 2012 and is comprised of 164 members, 48 of whom are women. They are primarily peanut growers but also cultivate maize to a lesser extent. Women have traditionally been marginalized in maize production, as it is viewed as a relatively elitist crop and is particularly demanding in many ways including land preparation and fertilization. The farming methods used until now have resulted in very low yields. Faced with input supply challenges and limited access to technologies and markets, small farmers and particularly women with limited means have shown little enthusiasm for getting involved in maize production.

The success in recent years of the Federation of Saloum Maize Producers (FEPROMAS) has convinced even the most skeptical in the region that maize may be worth another look. According to Ramata Niasse, head of the network "the good reputation of FEPROMAS and especially the commitment of its female leadership caught our attention and we felt the need to join this effort."

After following all the necessary steps to meet the membership requirements, Taïba Niassène's allegiance with FEPROMAS finally became official in 2013. With mentoring from FEPROMAS, the group now has access to technical support, particularly from USAID's Economic Growth Project (*Project Croissance Economique*, or USAID/PCE). Members have received training in good agricultural practices, quality control, and the use of GPS—all of which have encouraged them to engage in maize production on a more professional level. "For example, we used to make estimated guesses for our crop areas: a plot that I had assumed to be one hectare turned out to be only 0.6 ha once I measured it properly with GPS. Meanwhile, for land preparation, I had been paying the price of one hectare, or 22,500 CFA—not to mention having applied the wrong seed and fertilizer amounts," Mrs. Niasse shared.

Today, thanks to its association with FEPROMAS, the network receives technical assistance in measuring plots, determining seed and fertilizer quantities needed, accessing credit, estimating yields, and marketing their crops. Members have been able to establish relationship with input suppliers, on which Mrs. Niasse said: "we certainly do not regret having joined with FEPROMAS, which guarantees us access to inputs that we now receive on time."

The land area under cultivation extended from 50 to 93 hectares between 2012 and 2013, all of which adhered strictly to technical guidance provided. Some members even made use of mechanized services for land preparation through renting tractors. Yields have grown from an average range of 600-700 kg per hectare to around 1.5 tons per hectare.

According to the network head, "the network produced 110 tons of maize in 2013 and distinguished itself within FEPROMAS as the first to have fully paid off their loans; also, we no longer have trouble selling our maize because FEPROMAS buys everything at a good price."

All of this demonstrates the newfound commitment of farmer members, particularly the women, to specialize in maize production. Requests to join their network are increasing, which opens doors to further strengthen the role of women in maize production and make them the drivers of expansion in this region of the Saloum.

"Since our farmer's group joined with FEPROMAS, we have received support from USAID/PCE; we've been trained in best agricultural practices, received inputs on time and all of our marketing problems have been eliminated."

-Mrs. Ramata Niasse, head of the Taïba Niassène maize farmer's network

SUCCESS STORY

FARMERS IN PAOSKOTO REVOLUTIONIZE THE CULTIVATION OF MILLET, TRIPLE YIELDS AND COPE WITH RISKSUSING RAIN INDEX INSURANCE

A young man of Paoskoto harvesting millet in his mother's field

"I realize that I can now take full advantage of my land, make it more profitable and earn a decent living, thanks to the agricultural technologies promoted by USAID/PCE in this region. This makes me feel like I am serving my homeland better while becoming more useful to myself. I think that is the essence of local development, or of development, period".

- Omar Neisse, President of the Independent Farmer's Group 'Dekkal Mbeyum Souna' of Paoskoto

Millet holds a prominent place in the agricultural production system of Paoskoto (District of Nioro). However, until recently, yields averaged from 500 to 600 kg per hectare due to the unsustainable cultivation techniques and poor quality of seeds that were being used.

Faced with this situation, USAID, through its Economic Growth Project (*Projet Croissance Economic*, or PCE), has initiated a program to support millet farmers. The Project helps producers get organized in networks to boost production and to get better integrated in upstream and downstream market channels.

USAID/PCE collaborated with the Economic Interest Group "Dekkal Mbeyum Souna" or "Revitalizing Millet Cultivation", which was formed in 2011. Facilitators trained by PCE have been delivering trainings across villages to disseminate technical messages on seed quality, conservation farming, organic fertilization, striga control, grain quality standards required by industrial processors, and more.

The results were immediate and clear, with unprecedented harvests and yields. Oumar Niasse, president of the EIG shared that in the 2013/2014 season, average yields were 1.5 tons and records of up to 3.3 tonnes per hectare were reached.

The farmers affiliated with the network reported that they could now meet their consumption needs for the entire year and also sell grain surpluses. Thus, amazingly, the traditional status of millet as basic subsistence crop has fundamentally changed. With the additional income gained, millet growers are able to take care of other non-food expenditures.

"We are no longer faced with the problem of difficult hungry seasons, and with the proceeds from the sale of surplus yields, we are able to cover medical costs for the family, pay school fees for the children, purchase fertilizer for next season and many of us can even afford the luxury of starting to build a real house," Omar stated.

He continued, "I realize that I can now take full advantage of my land, make it more profitable and earn a decent living, thanks to the agricultural technologies promoted by USAID/PCE in this region. This makes me feel like I am serving my homeland better while becoming more useful to myself. I think that is the essence of local development, or of development, period."

Despite these positive results, the members of the EIG are not unaffected by climatic stresses. Increasing instability of rainfall impacts their rainfed maize and makes farmers very vulnerable. To help farmers cope with these risks and facilitate better access to credit from financial institutions, USAID/PCE collaborated with the Agricultural Insurance Agency CNAAS and the intermediation firm PlaNet Guarantee to promote rain index insurance. The goal is to help producers protect themselves against rainfall deficits that could have dire consequences for their livelihoods, especially as millet is the main staple of their diet.

"For the 2014 rainy season, our group agreed to use our own funds to purchase an index insurance policy that covered nearly all 229 members, representing 271 of the 276 hectares sown for the season," reported the president of the EIG, adding: "with the late start of the rains this year, the network expects to receive compensation of about 30% of the crop value insured; so we are optimistic about being able to pay back our loans, which is critical for the expansion and continuation of what we have already accomplished!"

SUCCESS STORY

PUBLIC PRIVATE PARTNERSHIP (PPP) FOR AN EFFICIENT AND SUSTAINABLE IRRIGATED RICE SEED SYSTEM IN SENEGAL

Private seed processors with the Chief of the CTS, the seed analysis technician and the DRDR representative

"We now have all the necessary conditions in place for an effective and sustainable seed system, which is very strategic as certified seeds increase yields by 20 to 25%. With the new facilities and this highly innovative business model, we are now well equipped to meet our targets across the region, and above all, on time!"

Ababacar Sèye,
President of COO-SEN

The Seed Treatment Centre (CTS) of Richard Toll is a station specialized in the processing of seeds mainly for irrigated rice throughout the Senegal River Valley and Delta (St. Louis and Matam regions).

The CTS was exclusively under public management until 1997, when its operation was entrusted to the National Interprofessional Union of Northern Seed Processors (UNIS Nord) under the supervision of the Regional Directorate of Rural Development (DRDR).

With infrastructure dating from the colonial era and equipment consisting of two old processing lines, the center was no longer capable of meeting the increasing demand of seed business operators. Baïlo Sada Ly, the Regional Director of Rural Development (DRDR), recalled that there was a significant gap in the availability of certified seeds because of capacity limitation of the antiquated chains that could not treat more than 3,500 tons a year.

Seed availability is a central axis of the national rice self-sufficiency program (PNAR) to which the Government of Senegal is firmly committed. USAID, through the Economic Growth Project (USAID/PCE), decided to provide support to this initiative through investments in infrastructure rehabilitation, acquisition of a 66kVA generator to address recurrent power outages, and a new sorting line with a 3.5 ton hourly capacity.

Mamadou Diop, Head of the CTS, stated that "the center can now meet high demands and with better working conditions." And Mr. Ly, Regional Director of Agriculture added: "The renovation of these facilities and equipment enables us to be in tune with the national rice self-sufficiency program. We have gone from 3,000 to 6,000 tons of seed, which is a particularly significant development with the doubling of capacity. "
In the interest of modernizing the management of the CTS, USAID/PCE supported the Ministry of Agriculture in establishing the framework of Public-Private Partnership (PPP) with the Northern Seed Cooperative (COOSEN) that was set up for this purpose in November 2011. The agreement was signed in August 2014.

Enjoying the initial benefits of this partnership, Ababacar Seye, President of the COOSEN stated:"We now have all the necessary conditions in place for an effective and sustainable seed system, which is very strategic as certified seeds increase yields by 20 to 25%. With the new facilities and this highly innovative business model, we are now well equipped to meet our targets across the region, and above all, on time!"

As for Mr. Ousseynou Ndiaye, President of UNIS Nord and Vice President of the COOSEN, his only regret is for the delay in establishing this organizational model, because according to him: "this PPP is better suited for the efficient management of the CTS… it has enabled us to renew the sorting line and to consider the purchase of additional equipment, including a weighbridge and mobile seed treatment units to cover remote areas in Podor and Matam.

SUCCESS STORY

WOMEN OF DAGANA FIND THEIR WAY IN THE IRRIGATED RICE VALUE CHAIN

Absatou Welle (right), President of the farmer's group "REFER," with other network leaders in a rice field

Demonstration session on quality control delivered by a REFER member

"With the guidance of USAID/PCE, we, women of Dagana, are now able to produce high quality white rice, which opens up many possibilities in terms of production and marketing."

Absatou Welle,
Chair of the Rural Women's Enterprises Network (REFER) of Dagana

The 'Women's Rural Enterprises Network' ("Réseau Femmes Entreprises Rurales", or "REFER" for short) of Daganais a structure that brings together women's groups in the communities of Bokhol, Gaya, Ndiarème, Ndombo, Guidakhar and Dagana. With 2,600 members, including 2,509 women making up 96.5%, the network engages in rice farming, vegetable growing and livestock fattening. They also engage in processing and marketing of primary products. Irrigated rice cultivation remains the main activity of the group.

However, lack of compliance with good practices, particularly in post-harvest and milling methods, led to a poor quality and low value rice product.

Through scale-up activities for irrigated rice, USAID/PCE consulted the REFER group on quality norms and grading methodologies. Support began with the identification of paddy collection points along with awareness raising meetings on best practices. Follow-up training sessions on quality grading were then organized at the six identified collection points.

Two facilitators, a supervisor and a database manager working with the group have been trained and provided with the necessary equipment for quality control management, including computer, a moisture meter, a precision scale, a mini-sheller and a probe for sampling and testing rice quality. This internal technical support team has trained 300 network members, 75% of whom were women. This targets the objective set by REFER to consolidate 2,000 tons of paddy from its members.

Immediately after training, women attendees apply the newly learned techniques to measure the quality of their rice, which has in turn allowed them to assess the significant progress made since changing from their previous practices. The impact is clear according to Ms. Absatou Welle, President of REFER, who recalls: "We were mixing all varieties and we did not respect the required humidity level for a good yield after processing. Through effective application of the quality control process, we see a significant improvement in the quality of our rice. Now we are able to produce high quality white rice that meets urban market standards and that is just what we needed; we regret very much not having been in partnership with USAID/PCE earlier."

Inspired by these encouraging preliminary results, Ms. Welle shares the network's ambitions:"I think we are now fairly well-equipped to increase our share of the local market and even at the sub-regional level. Moreover, REFER expects in the near future to participate in fairs and other events to promote our local products."

To rise to this challenge, the network plans to develop a branding strategy for its rice in order to ensure market penetration of their competitive product that meets the quality demands of urban consumers.

ANNEX 2 – USAID/PCE Direct Training List

Themes	Target Groups	Number of Sessions	Number of Participants	Number of Women
Path to Good Quality Rice	Monitoring agents	2	45	3
Output Quality Control	Monitoring agents	4	62	17
Conservation Farming and Best Agricultural Practices	Monitoring agents	4	27	0
Data Collection and Cartography Tools	Monitoring agents	14	329	41
Geographic Information Systems	CCMA Agents	1	9	0
Microsoft Excel	Database managers	1	11	1
M&E Data analysis	Database managers	4	33	3
Satellite imagery and agricultural survey methods	DAPSA	1	6	1
Results-based Monitoring and Evaluation and Use of Web 2.0 Applications	Dapsa, Pafa, Bfpa, Barvafor, Direction de l'Agriculture, Direction Horticulture, Saed, Disem, Pasa Lou ma kof, DBRLA	1	26	10
Integrating Crops and Beekeeping to Boost Yields	Dapsa, Bfpa, Papsen, Ancar BAS,DRDR, Direction de l'Agriculture, Direction Horticulture, Saed, Disem, Pasa Lou ma kof, DBRLA	1	25	4
Seed Policy and Strategy for Reconstitution of Seed Capital	Bfpa, DRDR, Dapsa, CIH St Louis, Direction Horticulture, Direction Agriculture, CFPH, CIH	1	25	6
Production Planning and Programming	Network Presidents	1	24	2
Value Chain Financing	Financial Institution agents	2	34	0
Totals		**37**	**656**	**88**